

Silicon Integrated Systems Corp.

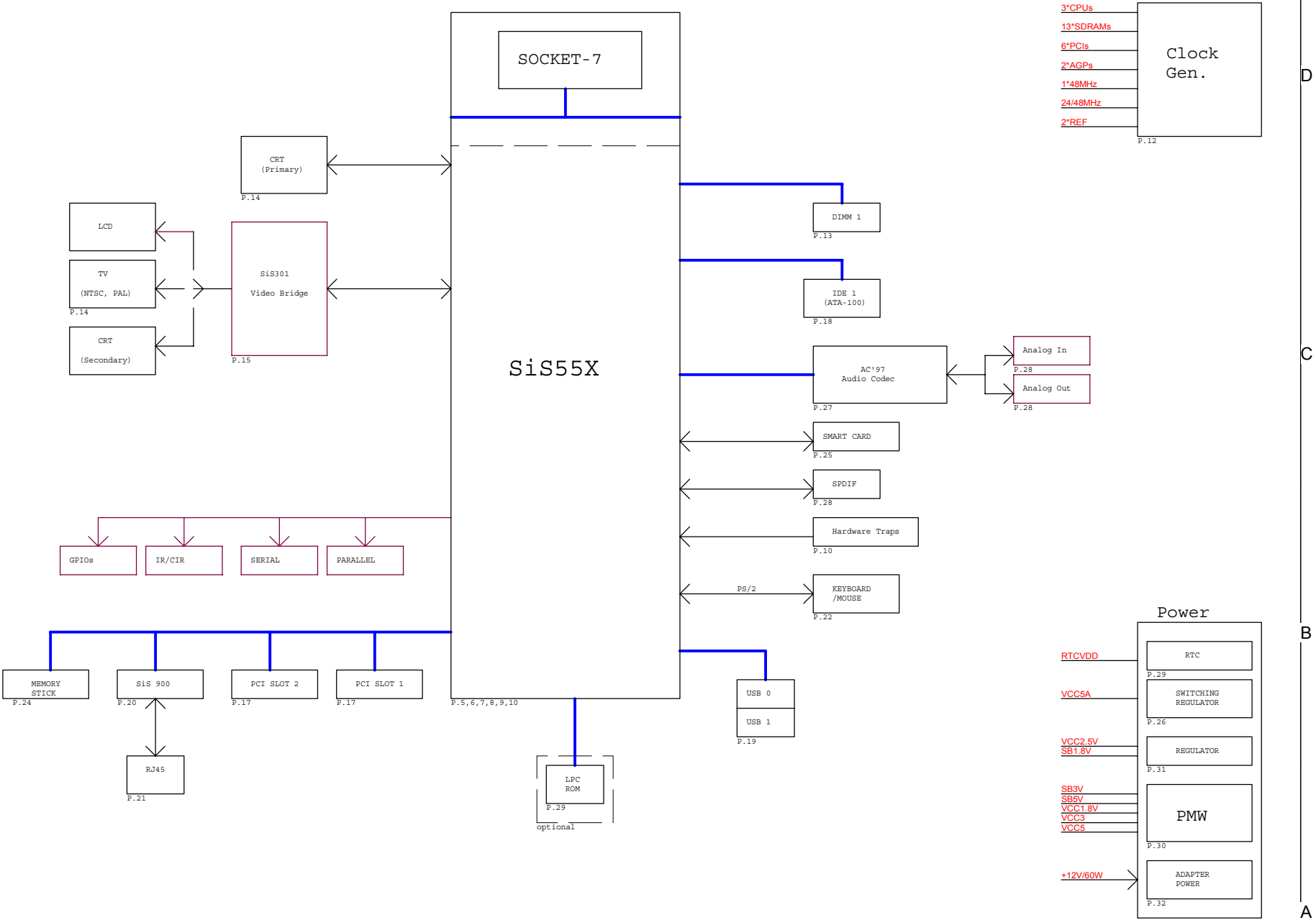
SS72 for SiS-55X Single Chipset
Uniprocessor Reference Design Schematics
Revision 0.9 (July 8, 2002)

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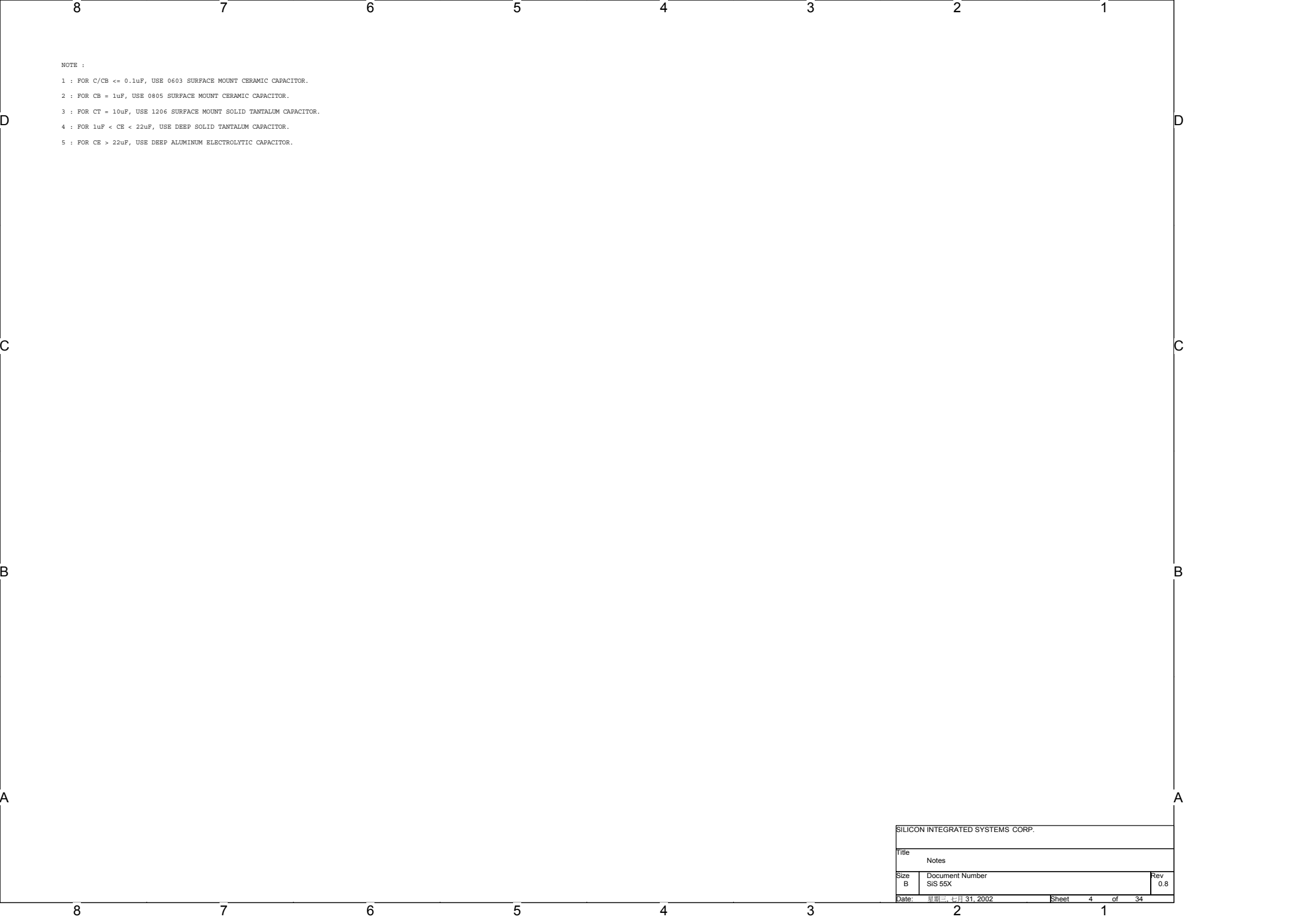
LINK
SS72A-2.SCH
SS72A-3.SCH
SS72A-4.SCH
SS72A-5.SCH
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SS72A-8.SCH
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SS72A-23.SCH
SS72A-24.SCH
SS72A-25.SCH
SS72A-26.SCH
SS72A-27.SCH
SS72A-28.SCH
SS72A-29.SCH
SS72A-30.SCH
SS72A-31.SCH
SS72A-32.SCH
SS72A-33.SCH
SS72A-34.SCH

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System Block Diagram



8	7	6	5	4	3	2	1
DATE	Rev	Description	Page				
2000/9/6	0.1	1. Initial release					
2001/3/16	0.8	POWER SYSTEM CHANGE CAN SAVE MORE THAN 50% Cost WE USE MOSFET TO SWITCH SB5V,SB3V INTO VCC5,VCC3 INSTEAD OF REGULATOR AND VCC1.8V FOR CORE POWER USE LOW-END SWITCH REGULATOR INSTEAD OF PWM USED FOR CPU ROM1 for Smart Car should Fed SB5V not VCC5 We add two LEDs,Red for SB5V,while VCC5 on,Red LED turn off and Red LED on. U31(LT1613)PIN4 should contact with VCC3 to enable itself. Add feature connector Add SLOT HOLE FOR SIS550 IN PCB BOTTOM DEFIND WRONG(B1,B2,B3) ADD NC PAD BETWEEN PSON# AND GND	30,31,32 25 26 27 16 31				
2001/4/10		PUT CKE[0..1] HIGH WITH 4.7K Add R1PCLKDVI4 TEST PAD RAD4,RAD6 PUT HIGH , RAD[0,1,2,3,5,7,8,9] PUT LOW Connect some NC pins of DSTN CONN. to the GND RGB Signals of DVI should add filter circuit Change HDDLED-0 jumper instead of LED. P1(LTP PORT),S1(S-VIDEO),J1(AUDIO JACK) Layout pin define error U14(IDEPWR CONN.) PIN DEFINE ERROR U18(IR) PIN DEFINE ERROR Remove SMART CARD LED Remove SMART CARD pin5 and pin9 junction FILT R should add a same capacitor value with FILT L Due to the RCA conn. color,we should tune the ap signals to meet its connector FLASH ROM power have VCC5 & VCC3 inputs with a jumper select Add some BULK capacitors to VCC5 and VCC3 in PCB Change inductor value from FB to 2.7uH Add VCC3_DIMM for S3 Change components value with AD1881 spec. Remove DDC2DATA & DDC2CLK from SIS55X to SIS301 Cut VGA conn. ground into VGAD ground plane Add SO3 pad for RADD[0..3] Mux GPIO0 and PWRGD to B2(For GPIO Test and Reset function) Add Two Variable Resistors to tune DSTN Contrast and Brightness One Moudle for DSTN power	12 5 6 13 16 26 23 18 23 25 25 27 28 28 14 33 27,28 7 13 6 8 13				
2001/6/13		Add 330uF on Q26 Drain and R214 path to GND to delay PWRGD signal for DOC and Q22,Q23,Q24 default value are NC D8(Red)for SB power and D9(Green) for Main power should connect to PS_ON not FN5235 powergood, cause FN5235 creat SB5V and SB3V,PWRGOOD already exit in AUX power Q14,Q16 for delay VIN to FAN5037 would damage by large current,due to RC5037 have no sofe star protect circuit to let gate drive turn on slowly We strongly recommand use FAN5037 instead of RC5037 Change VCC5 to SB5V for Mouse power to fix setup time too short We recover RGB connector GND plane to default setting Modify Page 23 Label PRNINIT- to PRINIT- which connect to 55X together Remove C57,C59,C61,C64,C66,C90	31 31,26 32 22 13 23 16				
2001/11/1		Swap RADD9<-->RADD10 Change CE29,CE35,CE37 from 330uF to 470uF Change L36 from 8.2uH to 16uH/5A Change PDS4410 Gate Drive voltage from VCC5 to +12V Remove LDO3(78L05) Change J19 from short pad to open pad Change R242 to SO3_4.7K(J3) pad Add TFT LCD Panel control signals combine to JP4 Modify PWRGD circuit Modify CIR circuit Change ROM power from VCC3 to SB5V for DOC Add DDC3DATA/DDC3CLK pull up resistors 4.7K to VCC3. Modify LCDVCC MOS circuit Change pin name of SIS55X Change R332 and R333 resistance value of RTC circuit Change main power circuit modify SB1.8V circuit.	6 32 32 19 18 18 6 13 11 23 29 15 13 5 30 11 11				
2001/12/26							
2002/4/1	0.9						
2002/6/20							
8	7	6	5	4	3	2	1
				SILICON INTEGRATED SYSTEMS CORP.			
				Revision History			
Size B		Document Number SIS 55X					Rev 0.9
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NOTE :

1 : FOR C/CB <= 0.1uF, USE 0603 SURFACE MOUNT CERAMIC CAPACITOR.

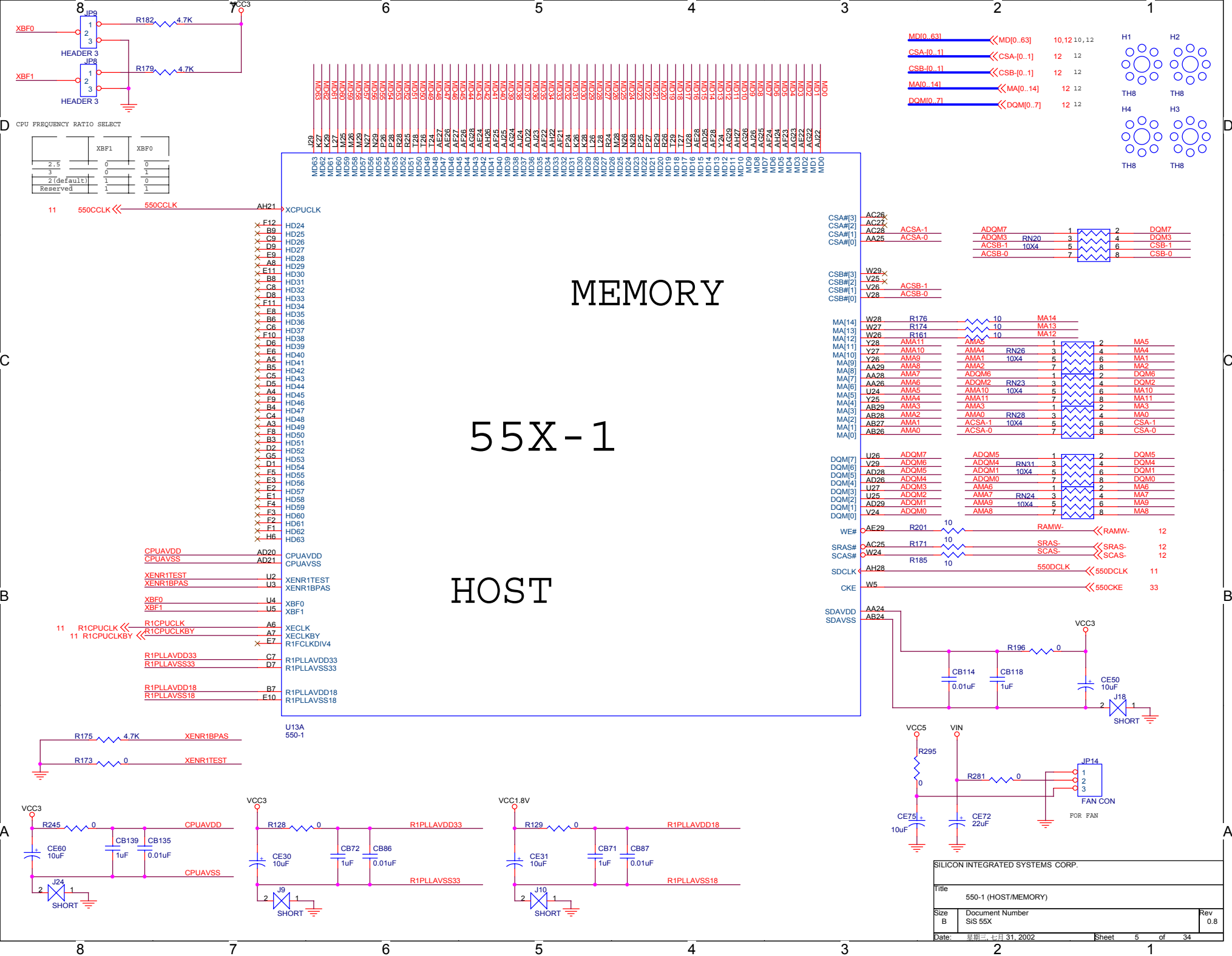
2 : FOR CB = 1uF, USE 0805 SURFACE MOUNT CERAMIC CAPACITOR.

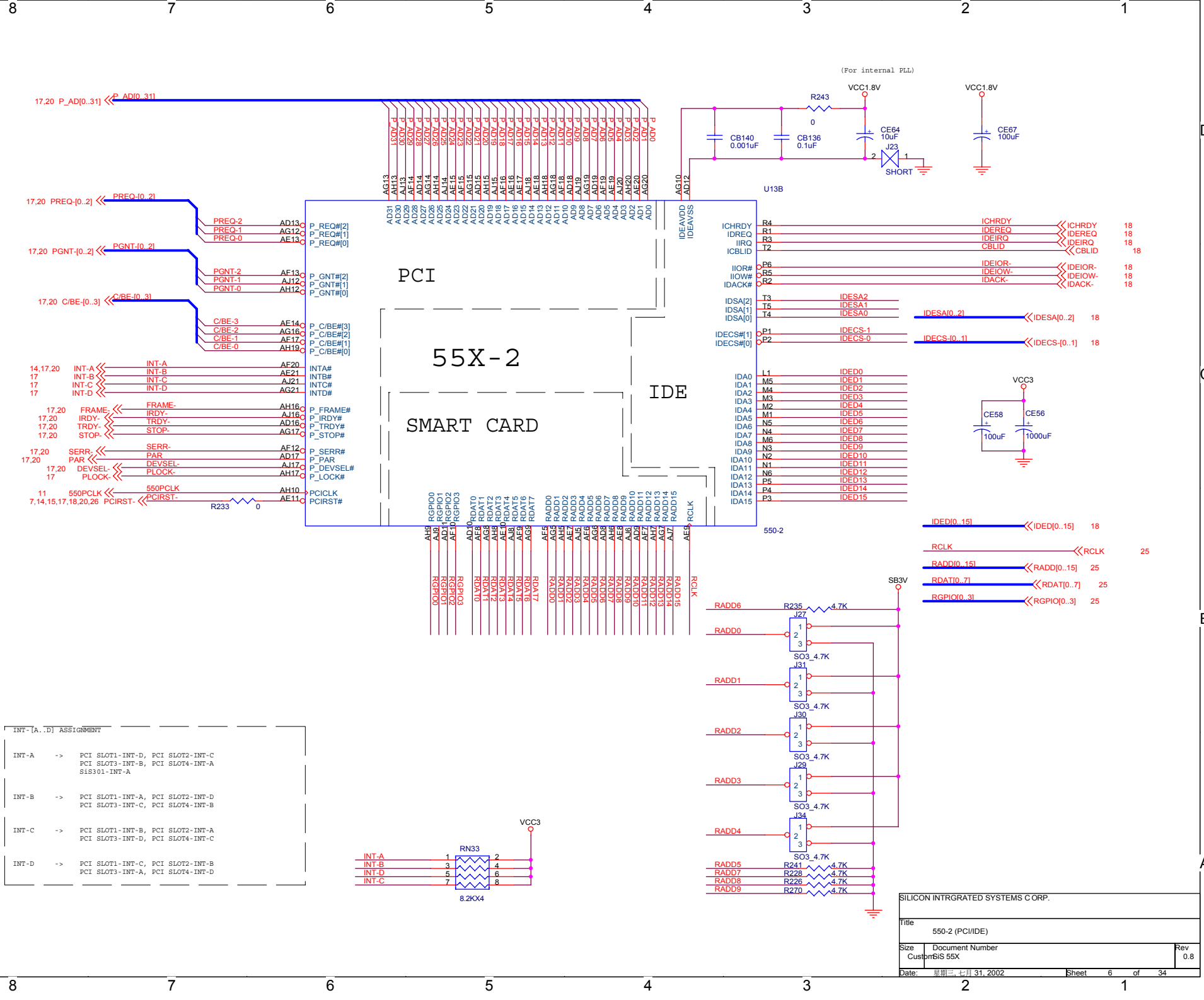
3 : FOR CT = 10uF, USE 1206 SURFACE MOUNT SOLID TANTALUM CAPACITOR.

4 : FOR 1uF < CE < 22uF, USE DEEP SOLID TANTALUM CAPACITOR.

5 : FOR CE > 22uF, USE DEEP ALUMINUM ELECTROLYTIC CAPACITOR.

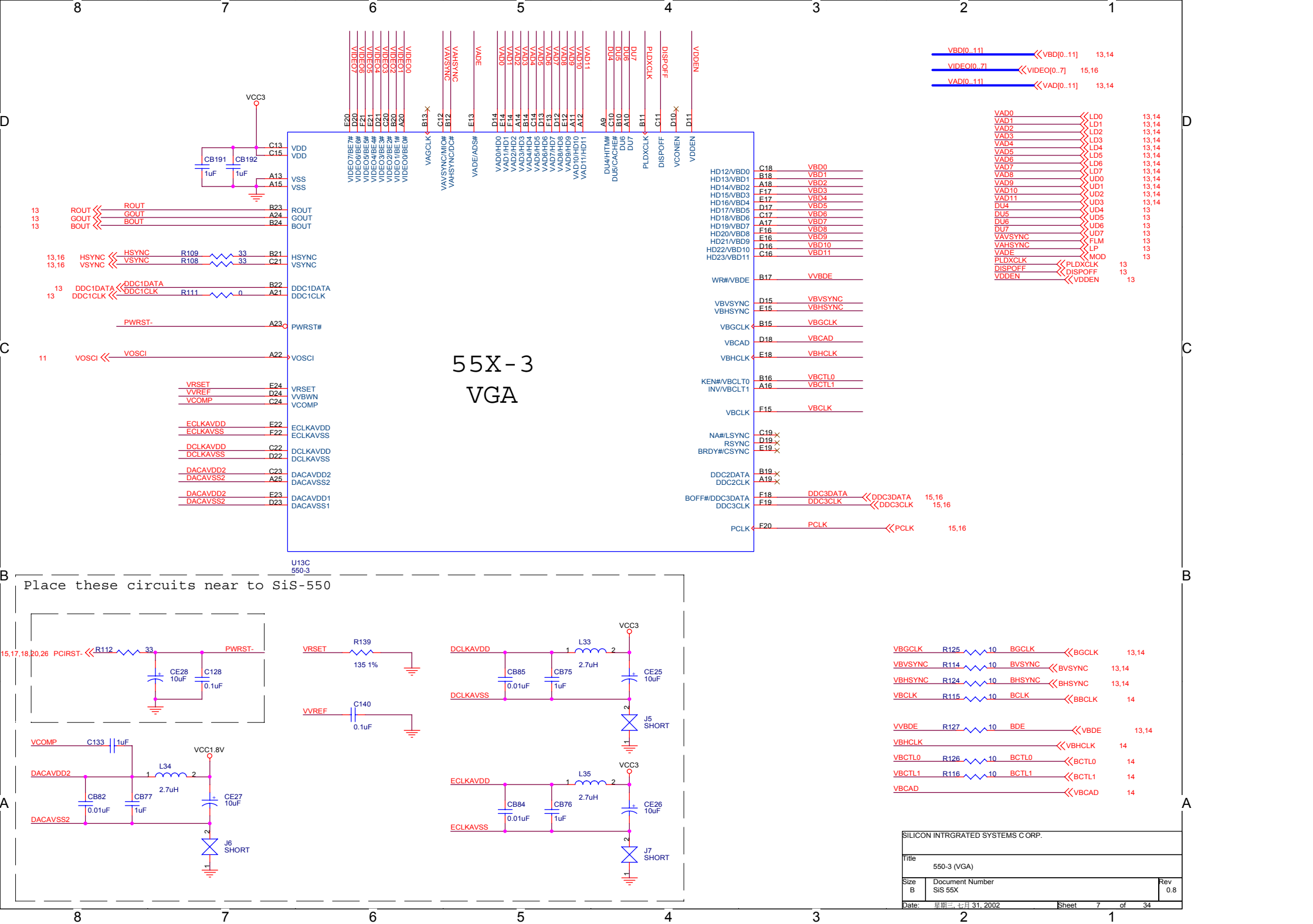
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Title			
Notes			
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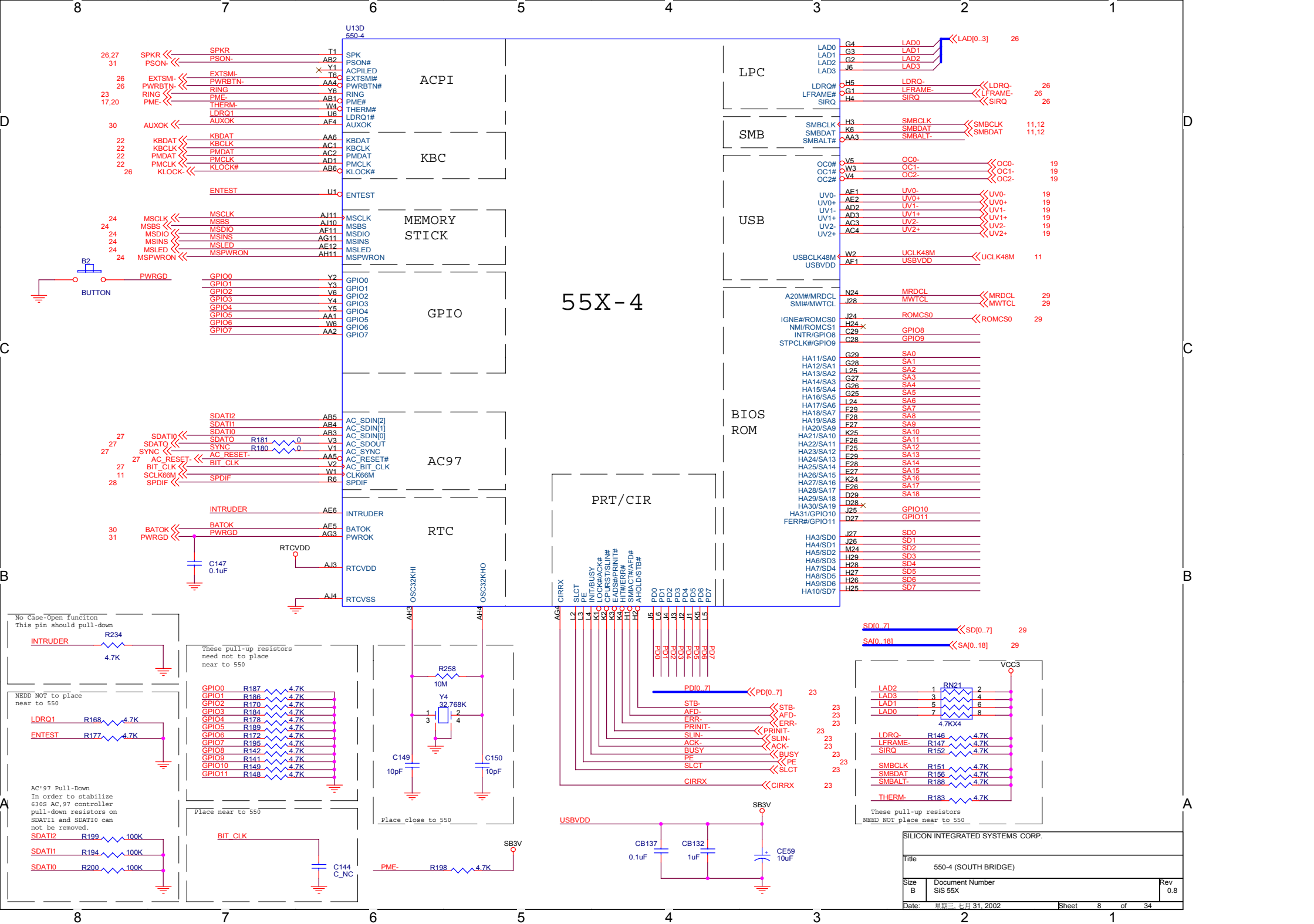


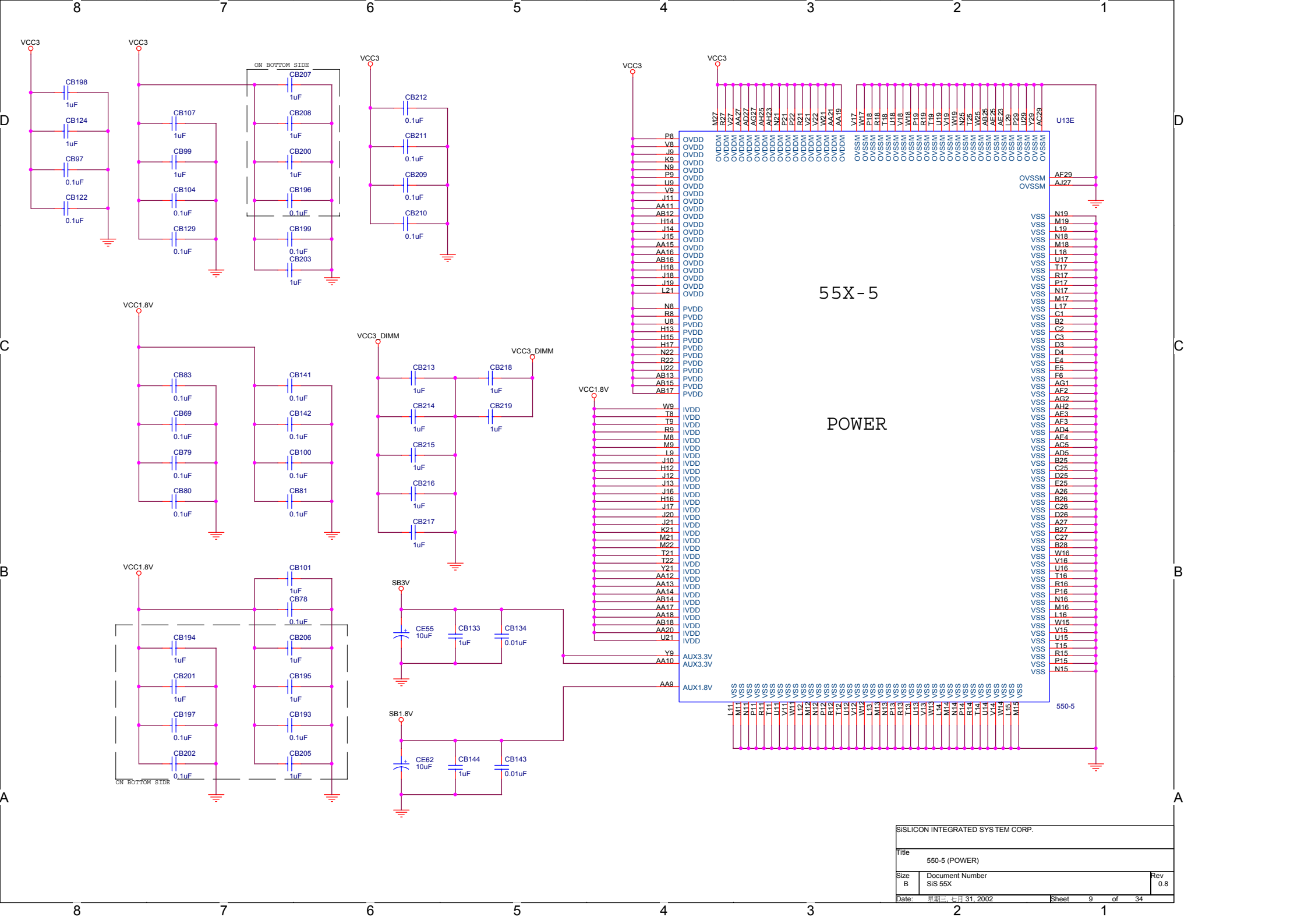


INT-[A..D] ASSIGNMENT	
INT-A	-> PCI SLOT1-INT-D, PCI SLOT2-INT-C PCI SLOT3-INT-B, PCI SLOT4-INT-A SIS301-INT-A
INT-B	-> PCI SLOT1-INT-A, PCI SLOT2-INT-D PCI SLOT3-INT-C, PCI SLOT4-INT-B
INT-C	-> PCI SLOT1-INT-B, PCI SLOT2-INT-A PCI SLOT3-INT-D, PCI SLOT4-INT-C
INT-D	-> PCI SLOT1-INT-C, PCI SLOT2-INT-B PCI SLOT3-INT-A, PCI SLOT4-INT-D

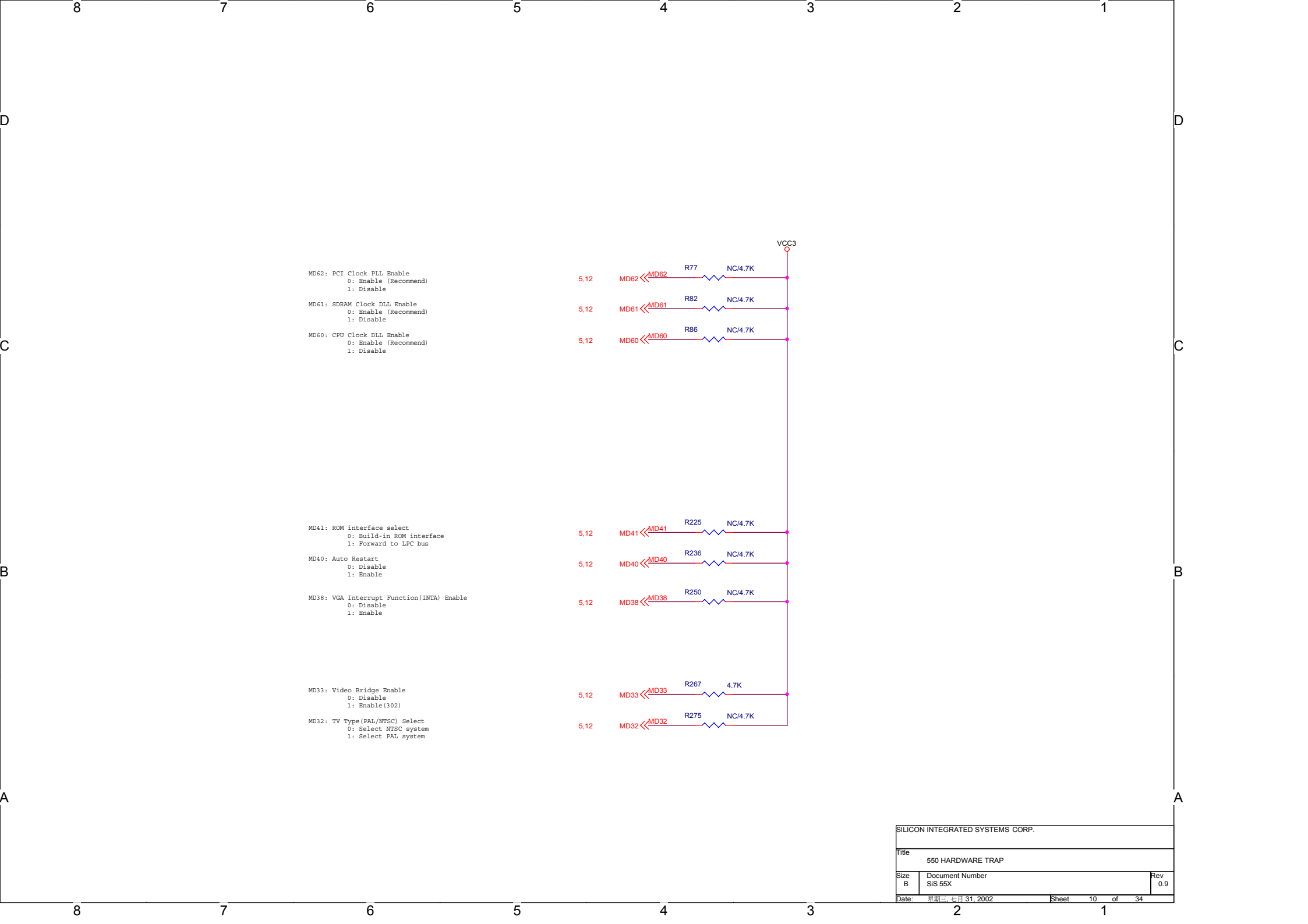
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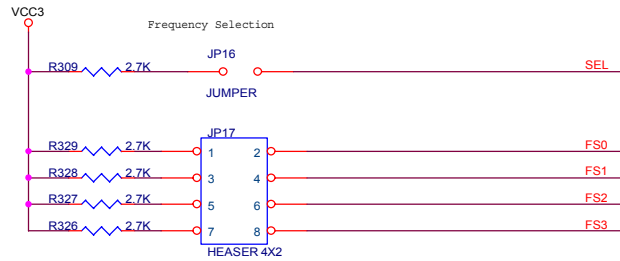
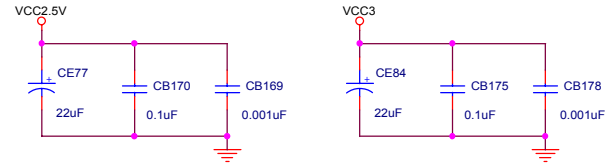
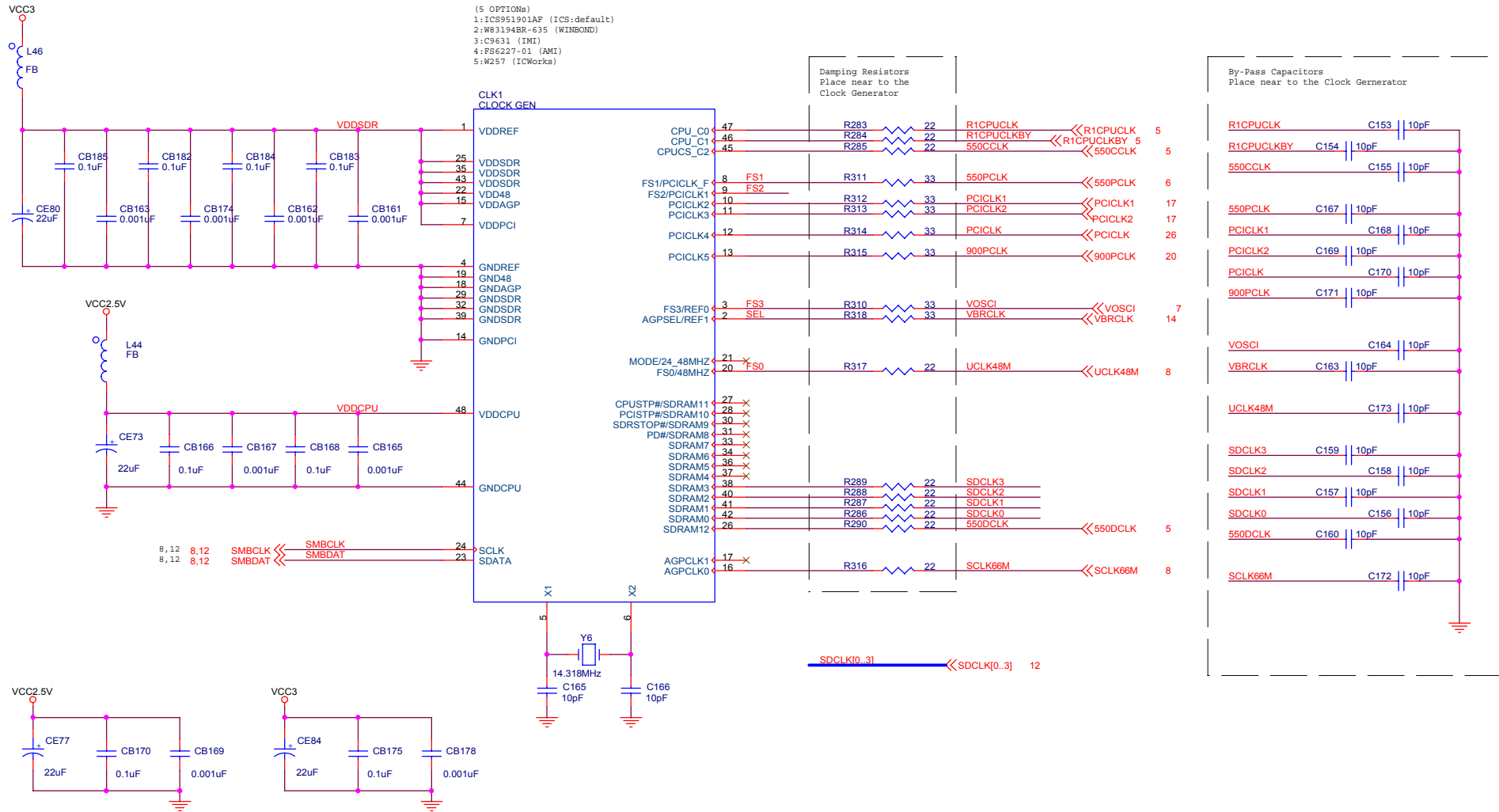


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Size	Document Number		Rev
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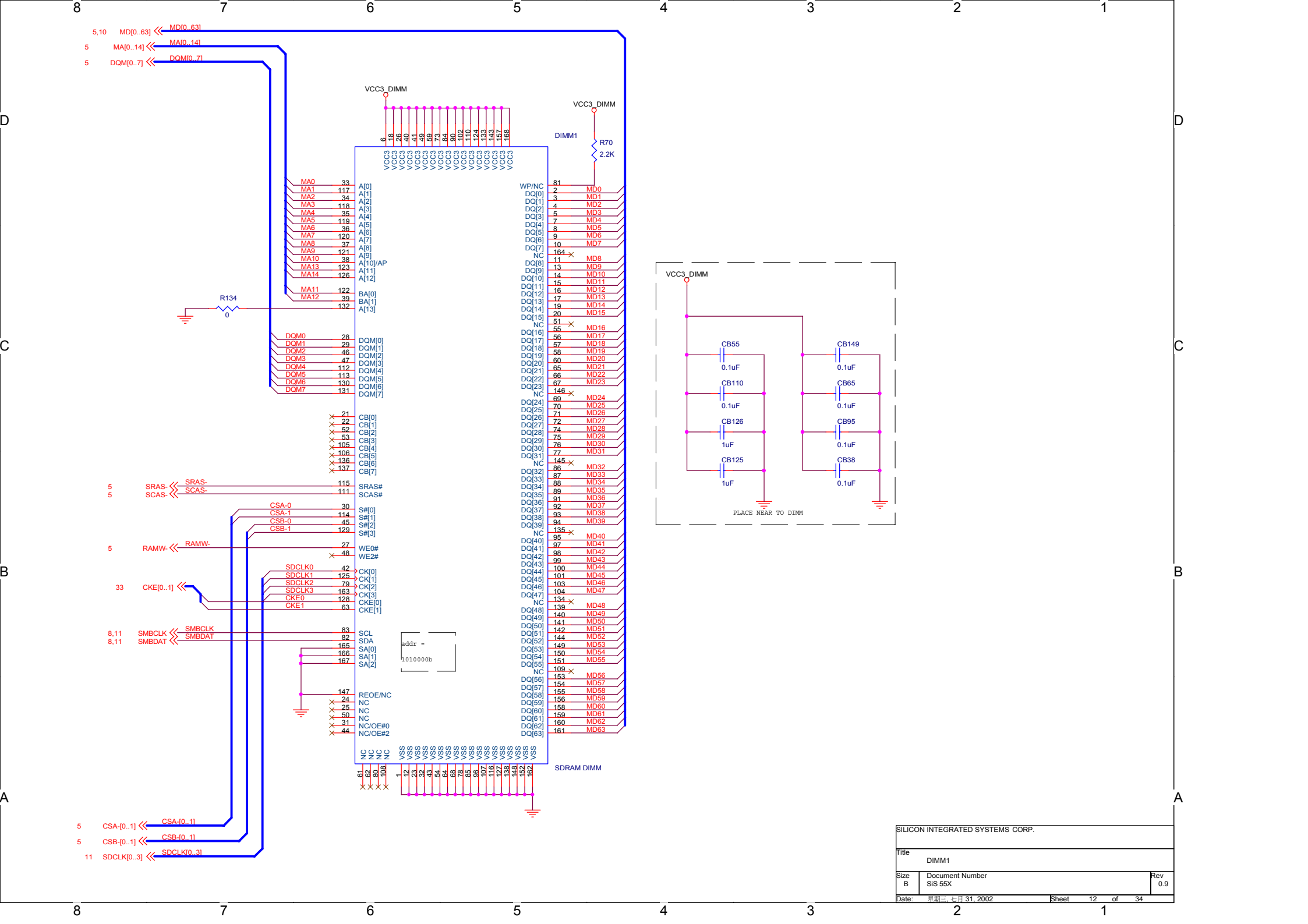


Clock Generator

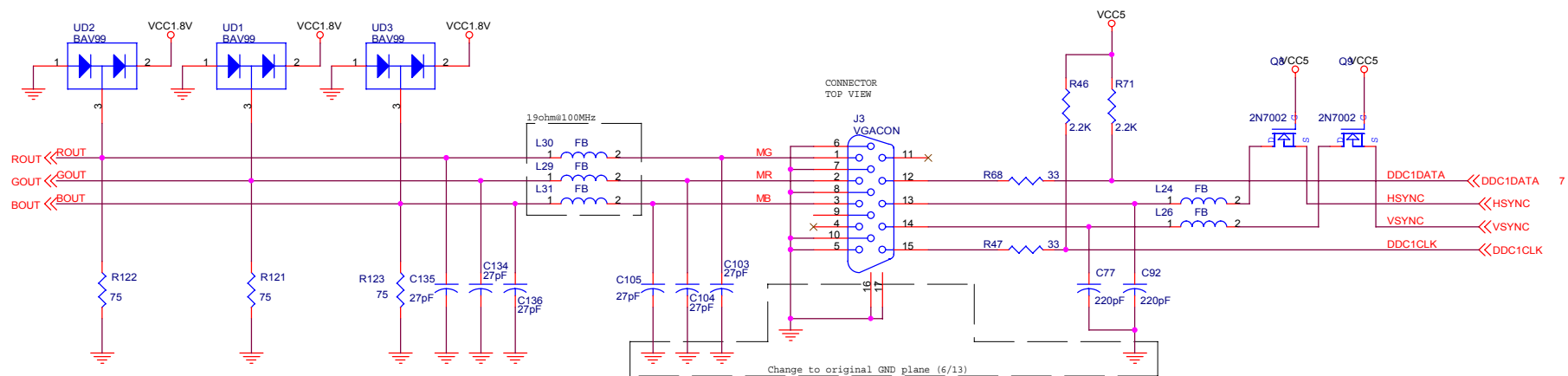
(5 OPTIONs)
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2:W83194BR-635 (WINBOND)
3:C9631 (IMI)
4:FS6227-01 (AMI)
5:W257 (ICWorks)



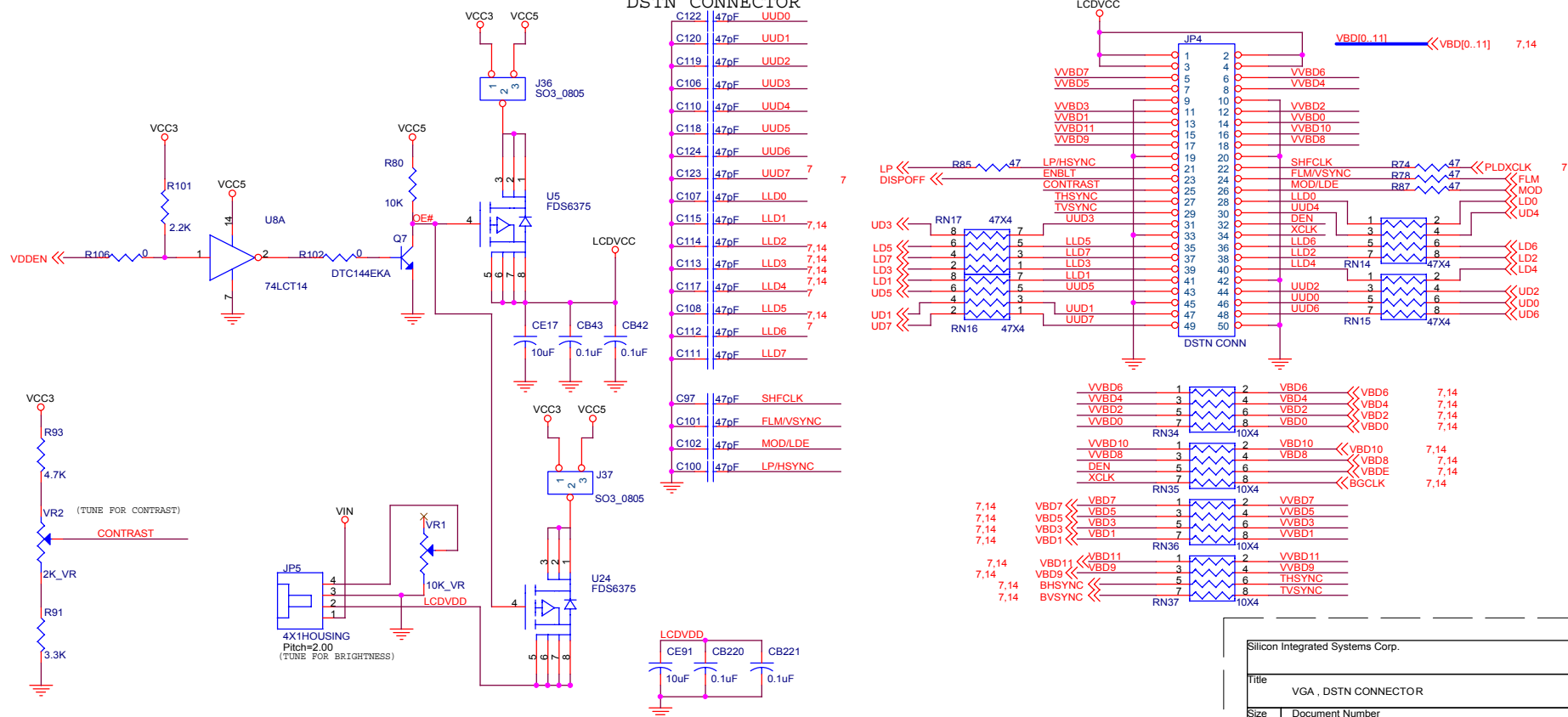
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Title CLOCK GENERATOR			
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VGA CONNECTOR



DSTN CONNECTOR

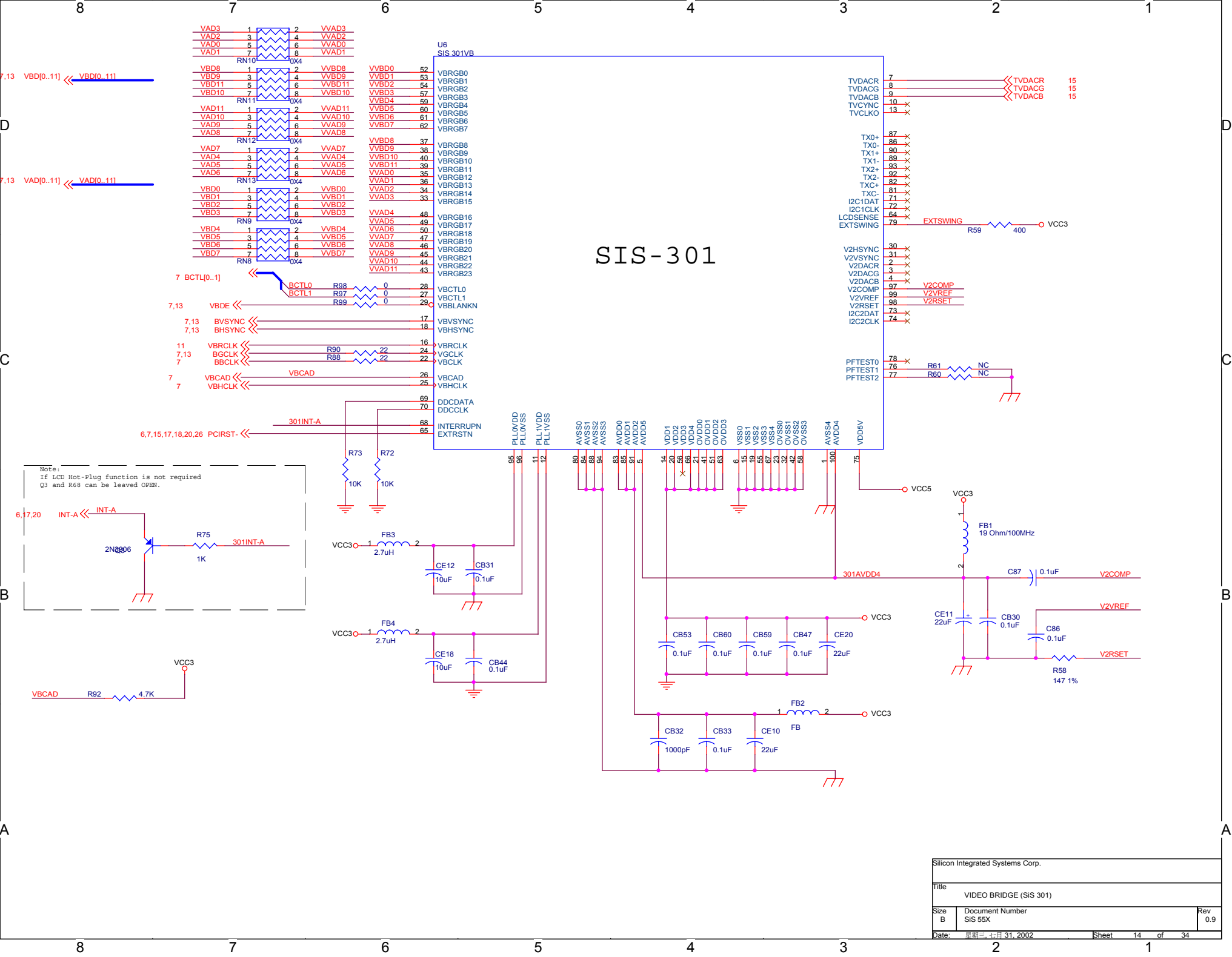


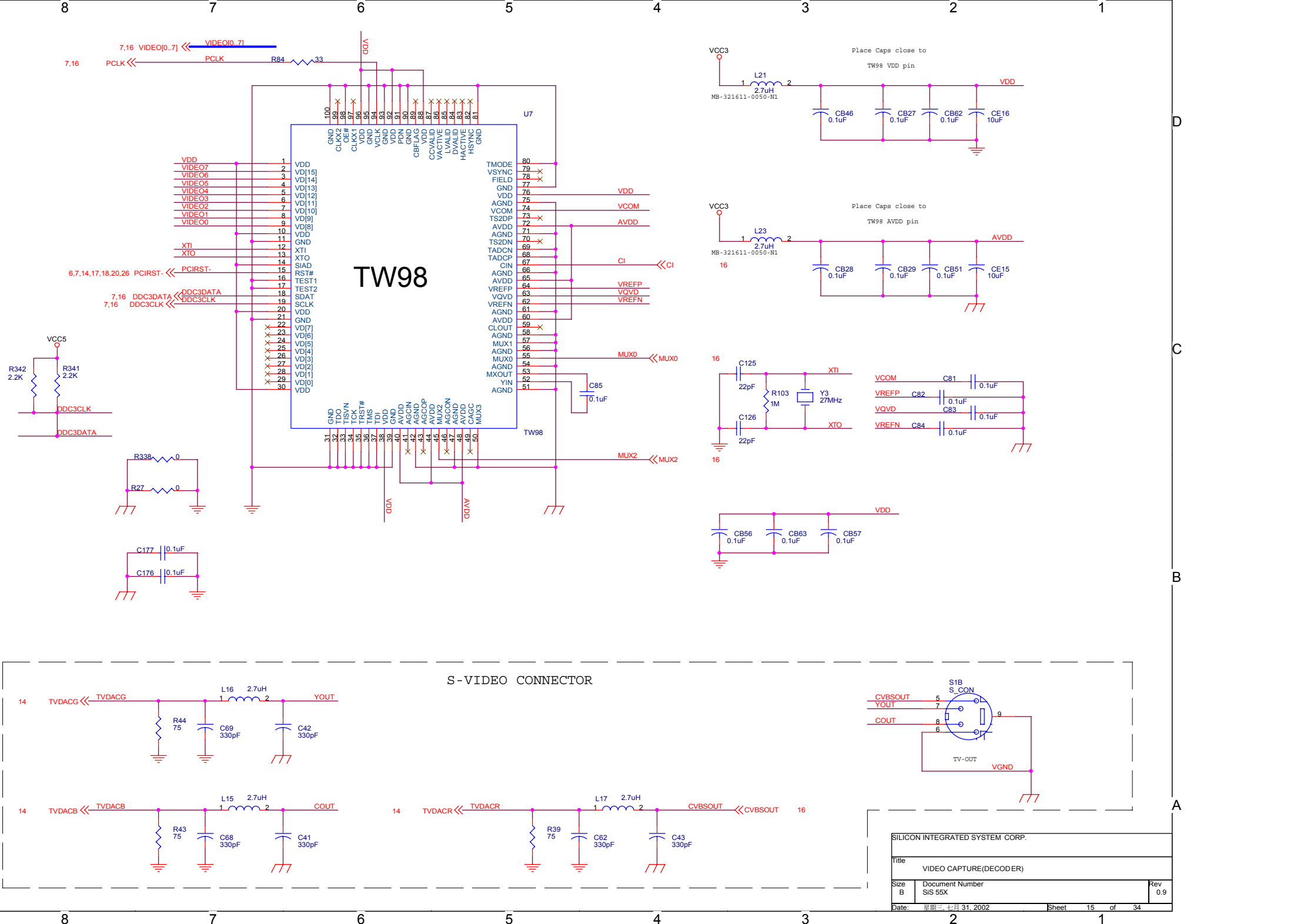
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Title
VGA , DSTN CONNECTORSize
Document Number
CustnSIS 55XRev
0.9

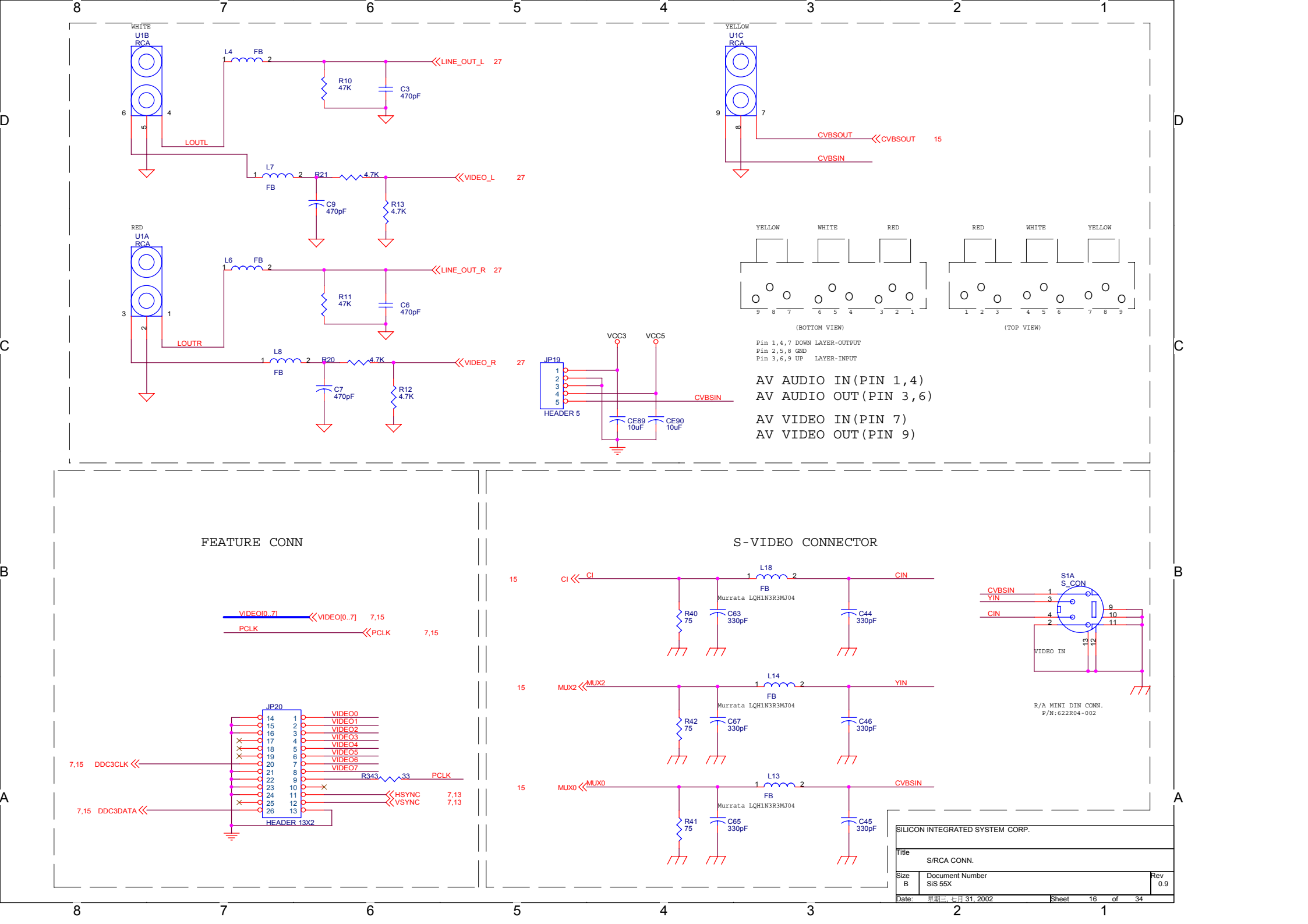
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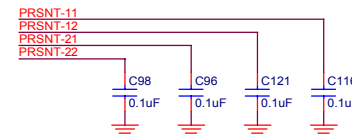
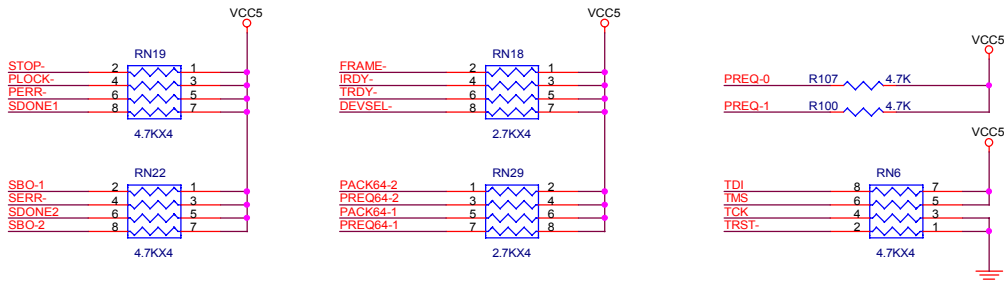
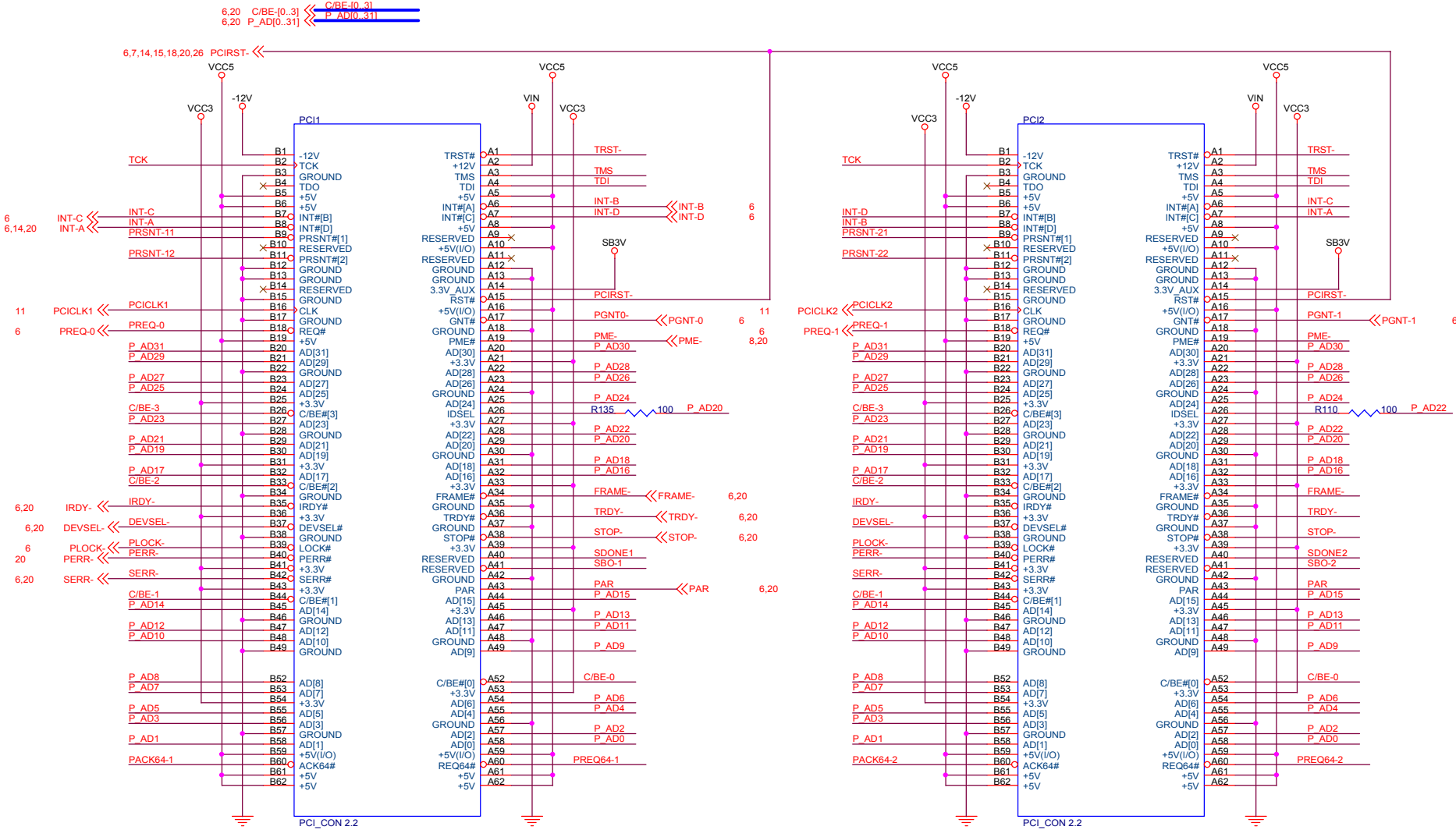




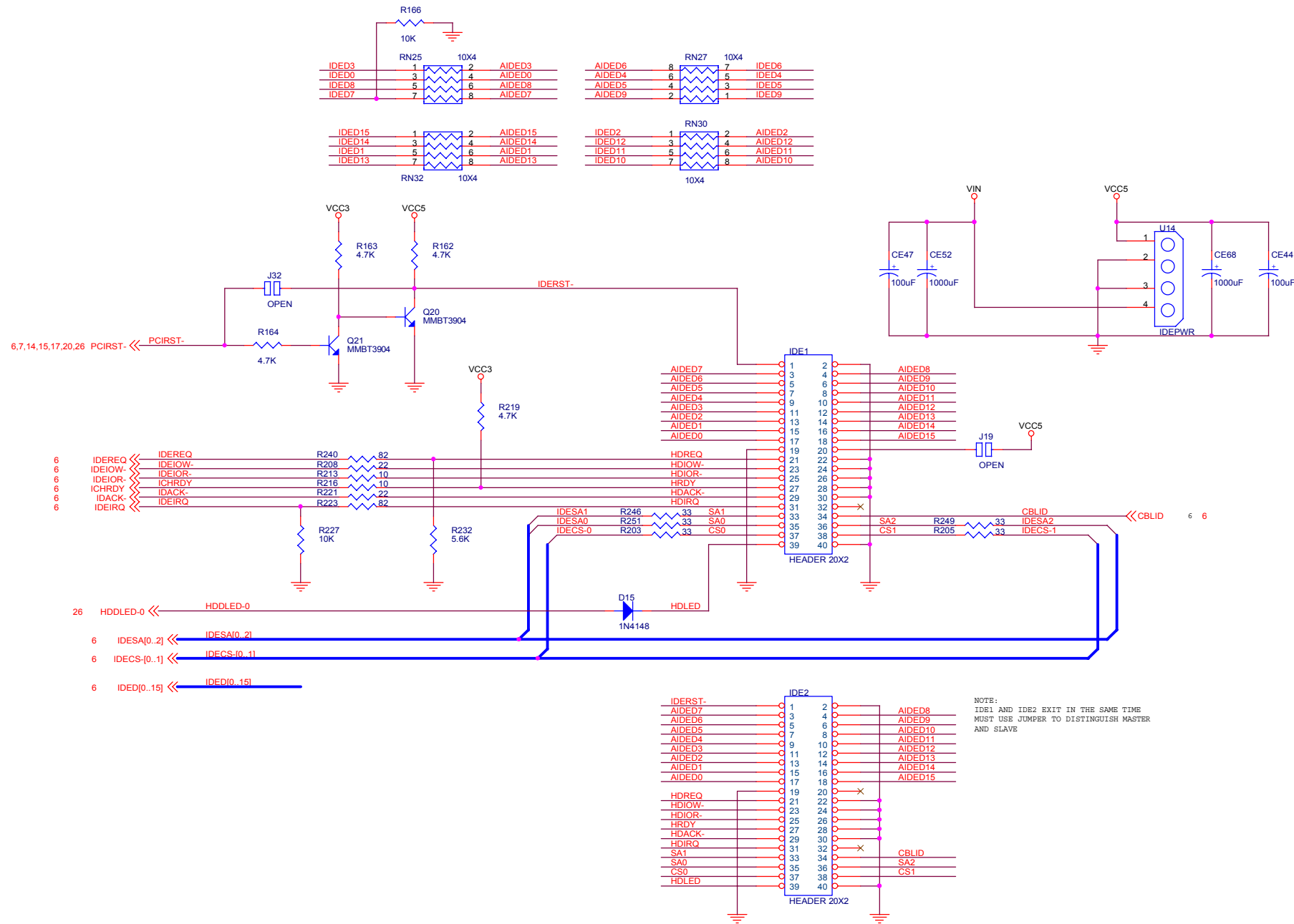
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Title VIDEO CAPTURE(DECODER)		
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PCI Slot 1 & 2

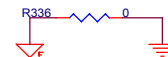
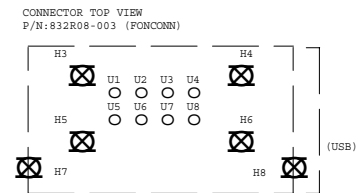
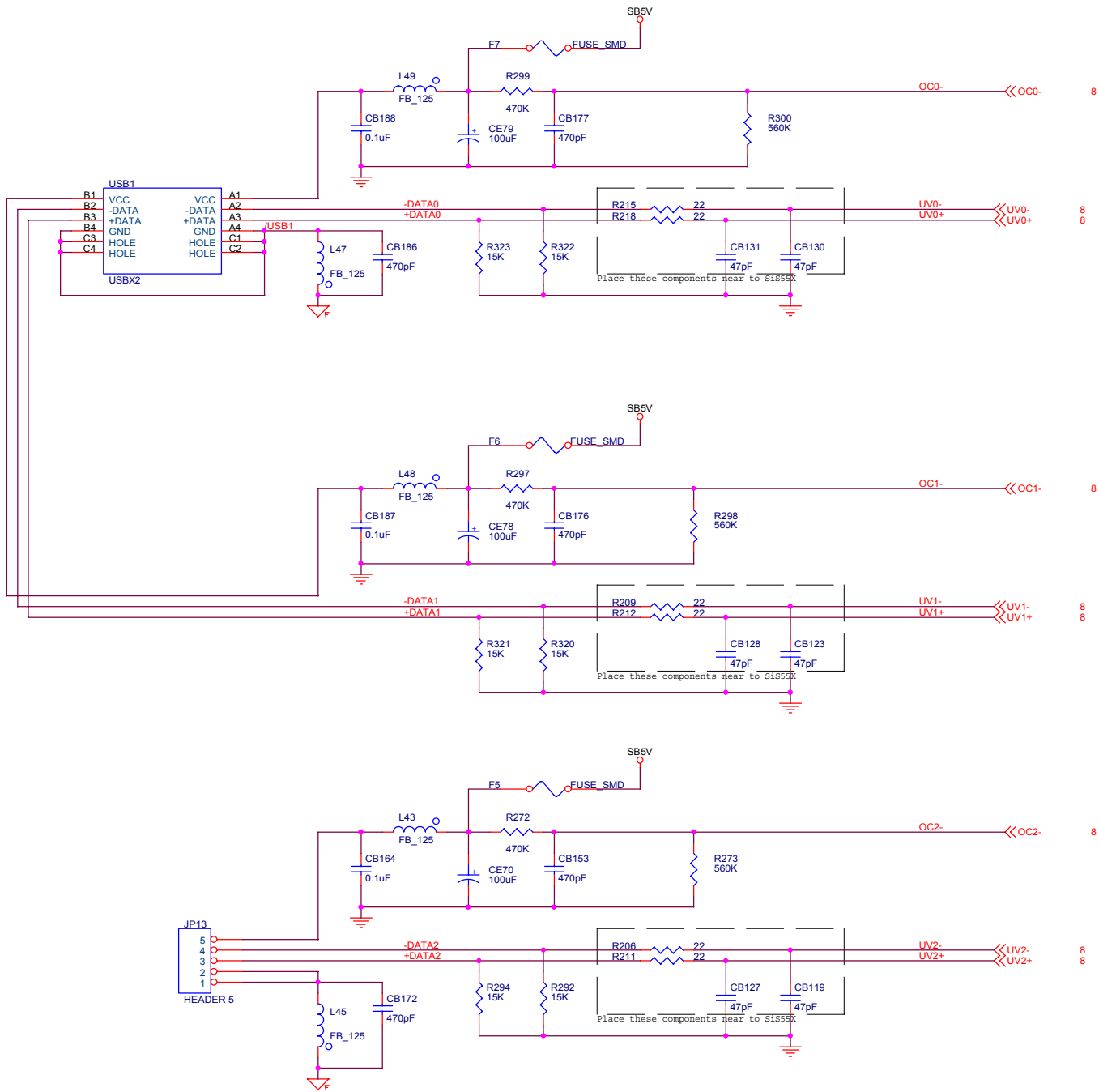


SILICON INTEGRATED SYSTEMS CORP.		
Title PCI Slot 1 & 2		
Size	Document Number	Rev
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Title IDE CONNECTORS		
Size CustnSIS 55X	Document Number	Rev 0.9
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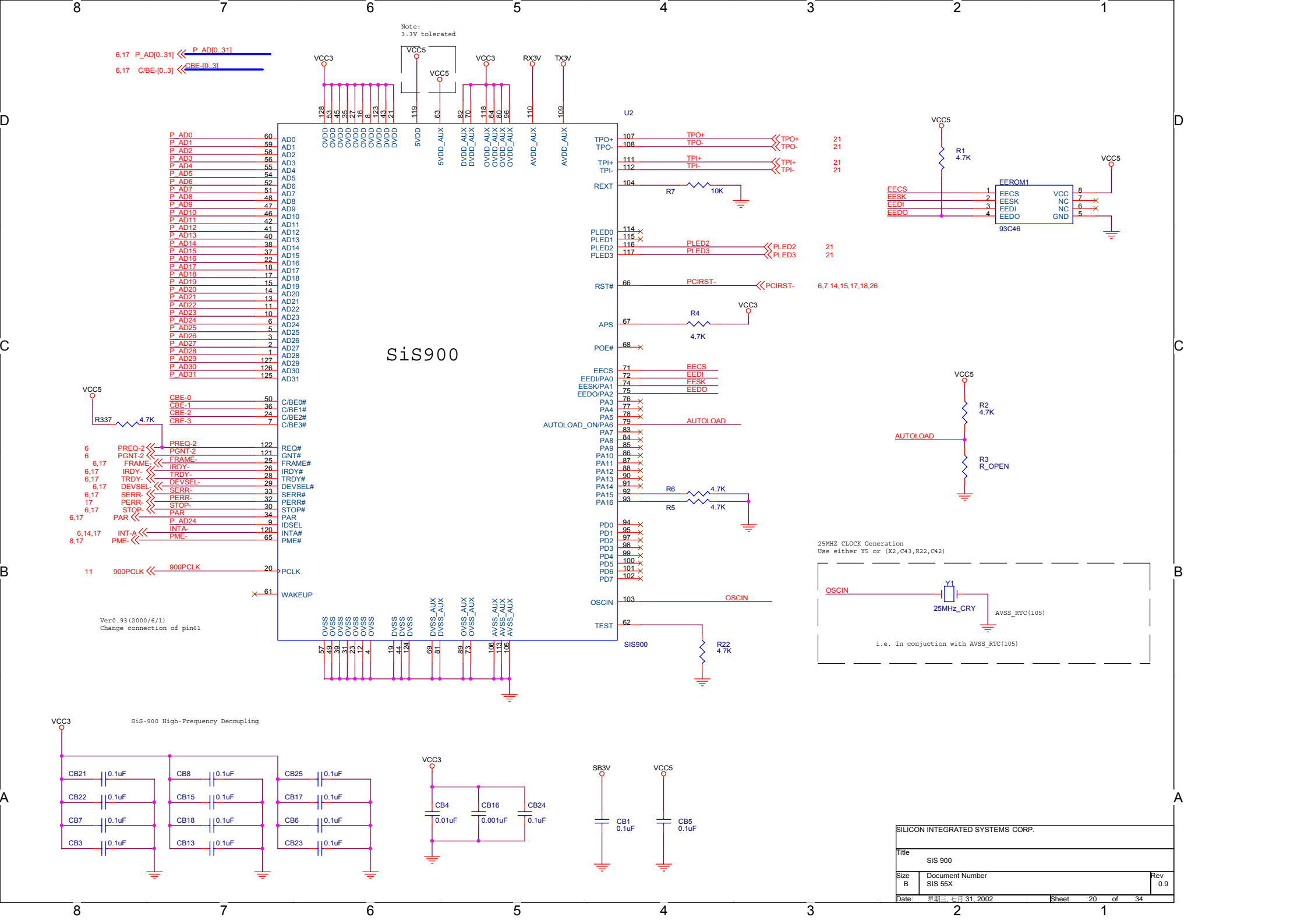


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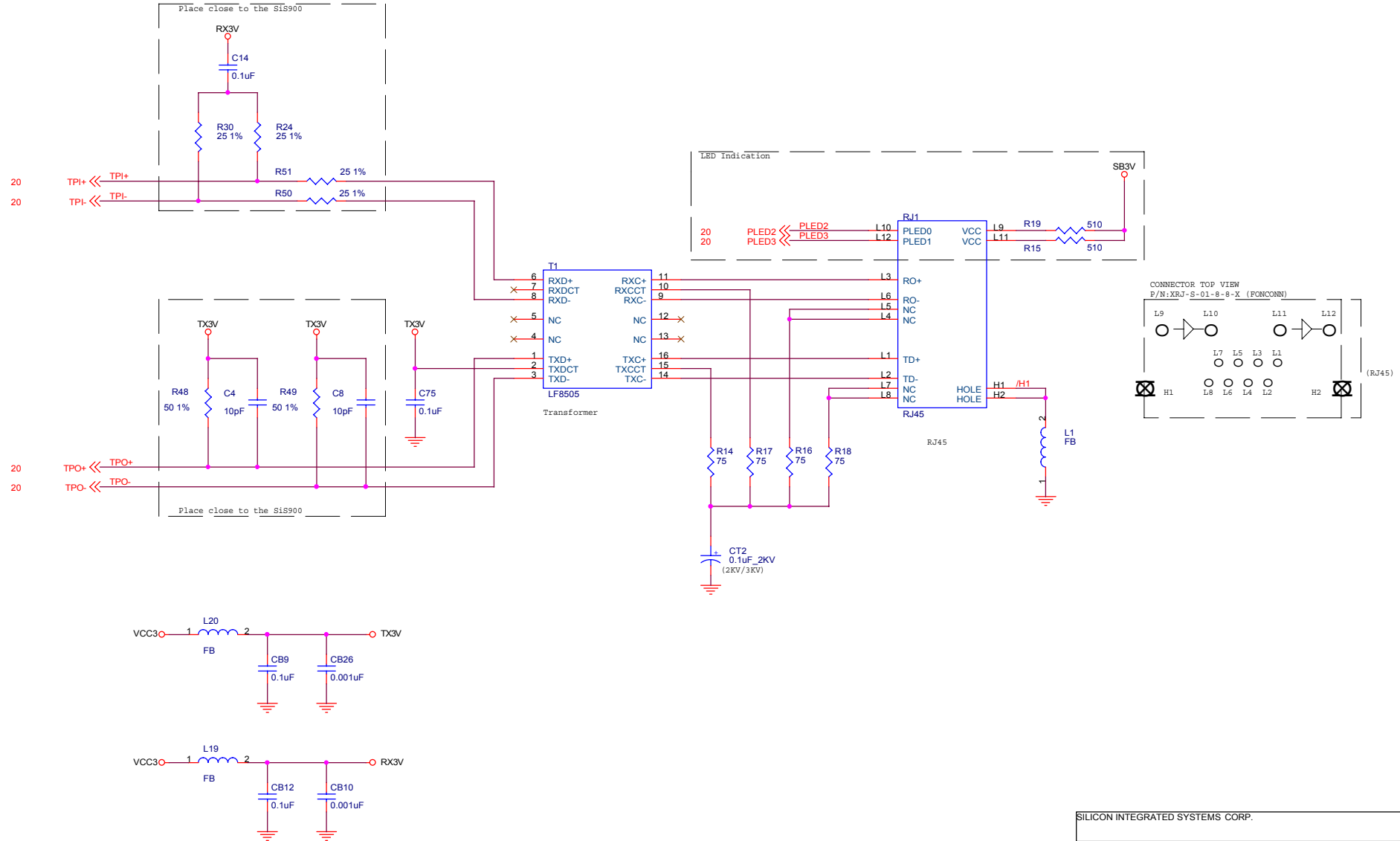
The Si5 55X integrates one USB controllers. One controls USB ports 0,1,2, and the other controls ports 3,4,5.

- 1.If you do not want to use some of the USB ports, you must to pull them down with 15K ohms.

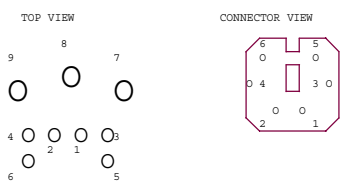
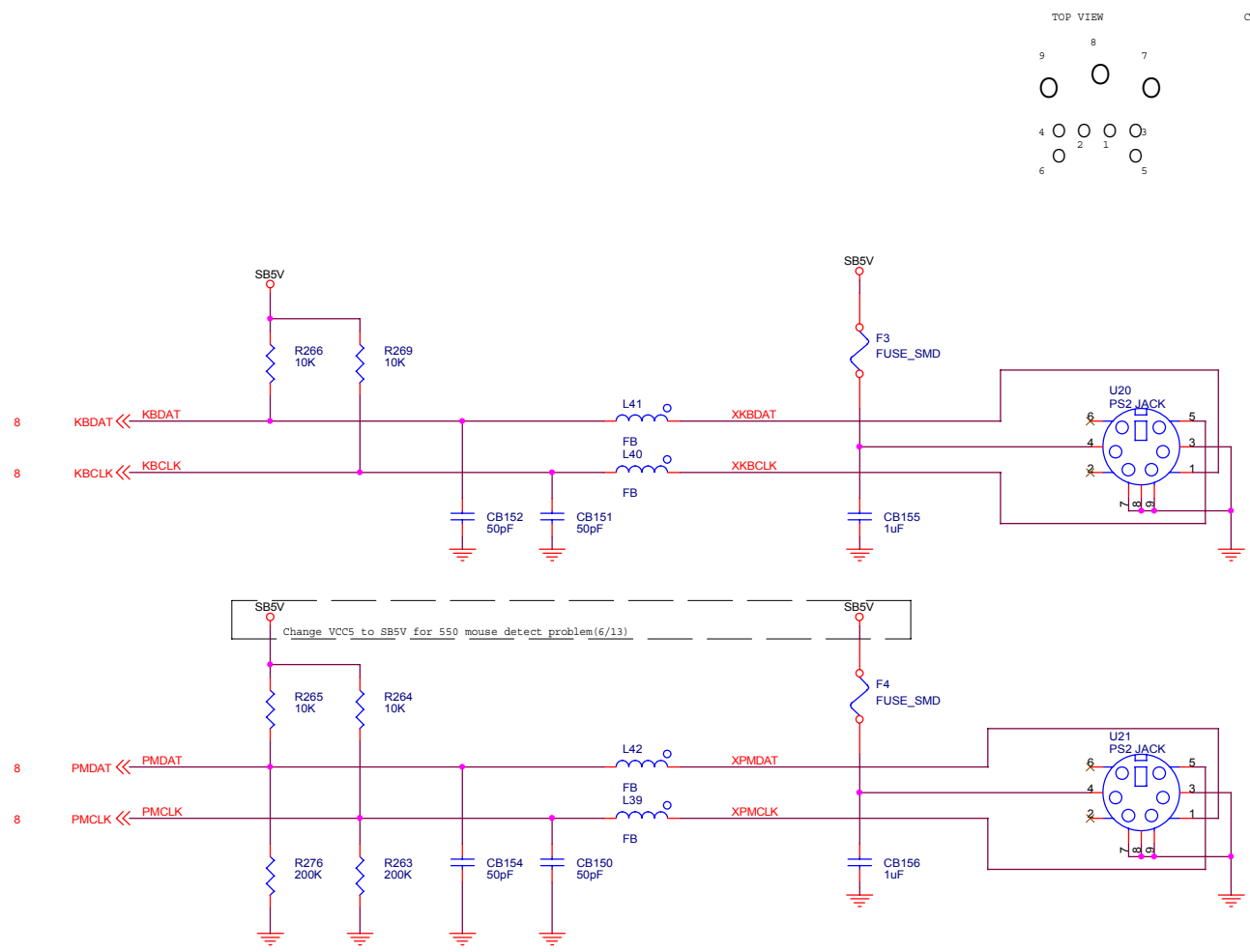
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RJ45 Connector

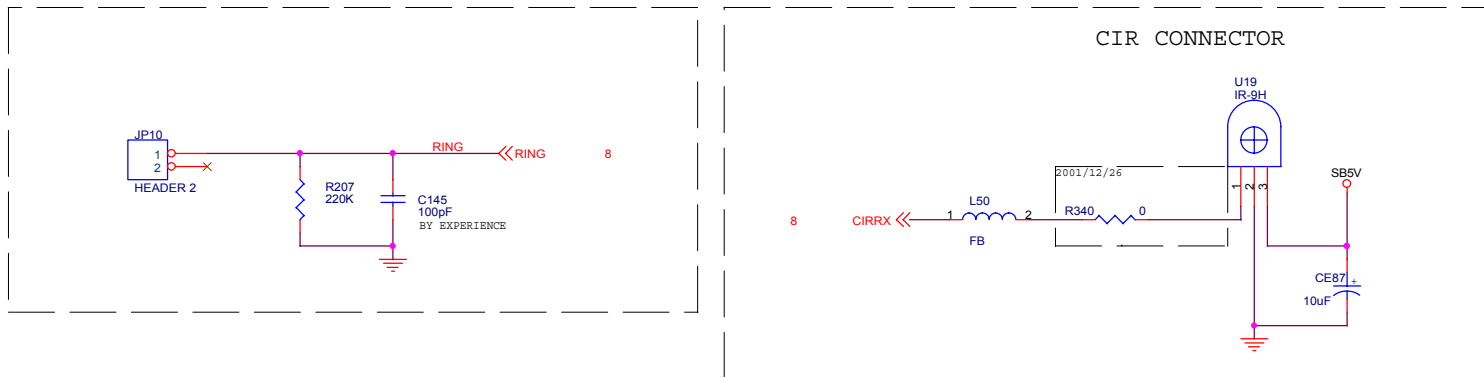
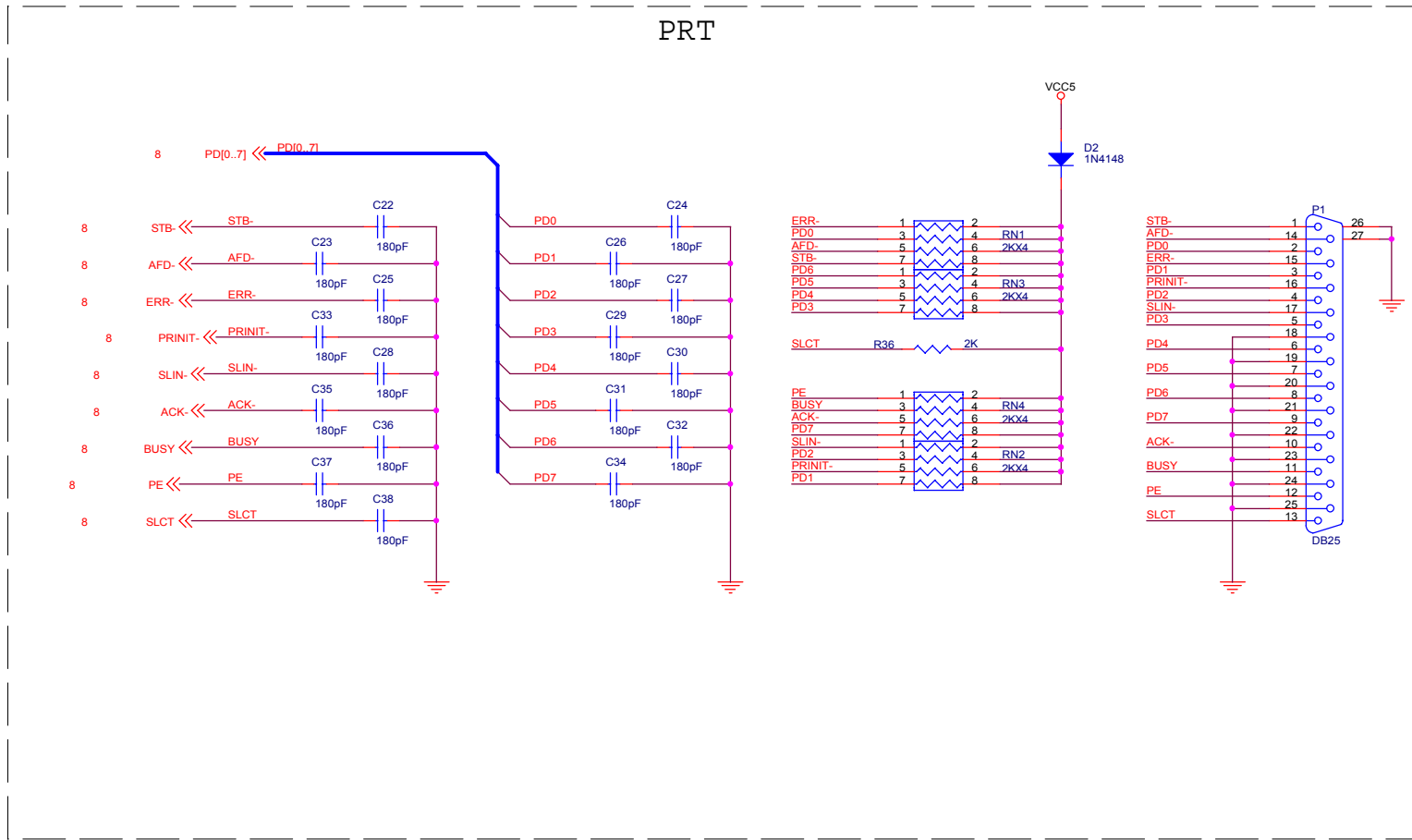


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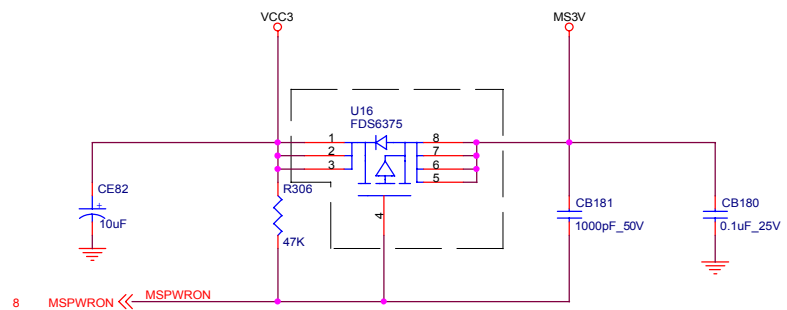
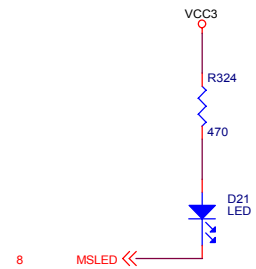
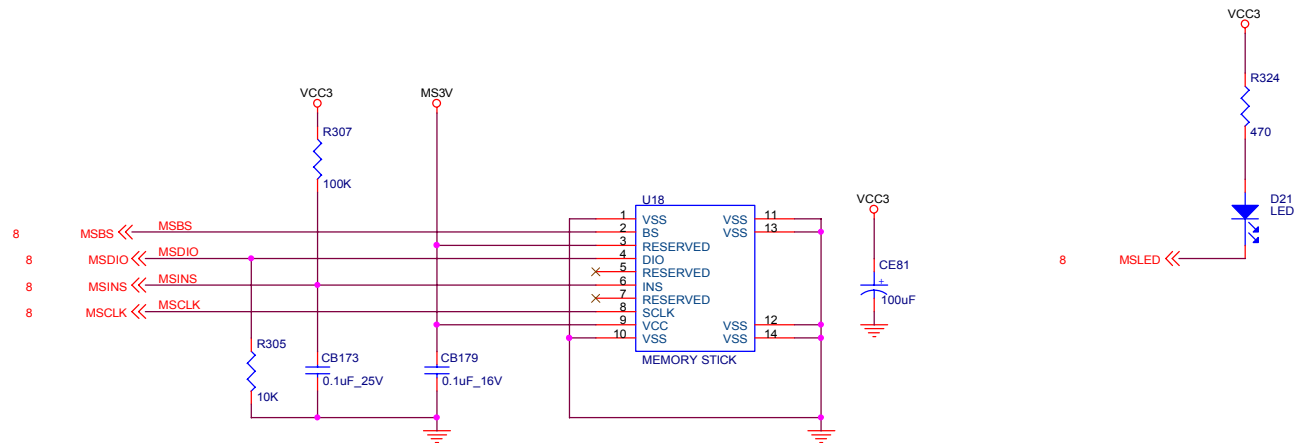


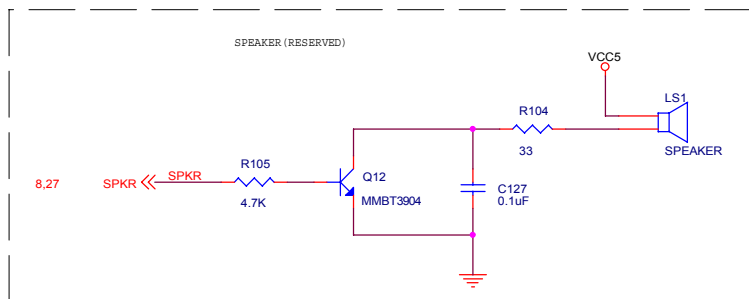
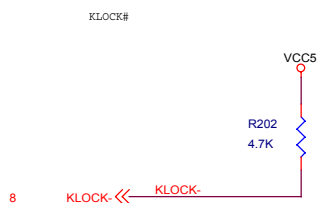
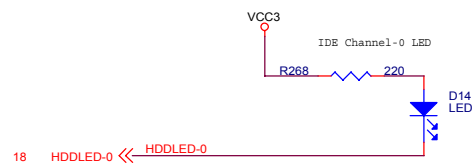
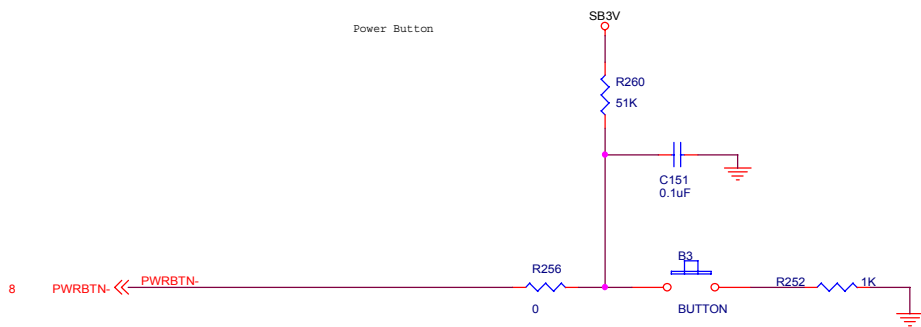
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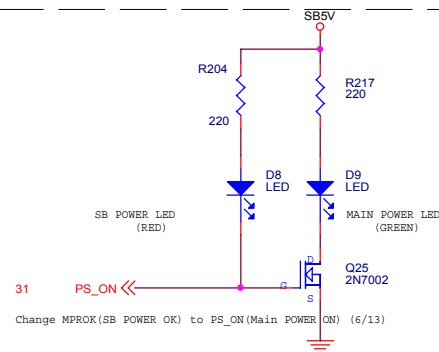
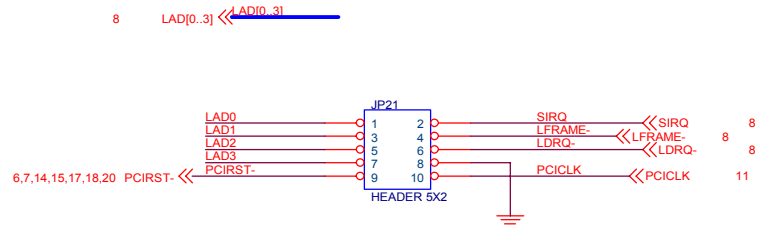


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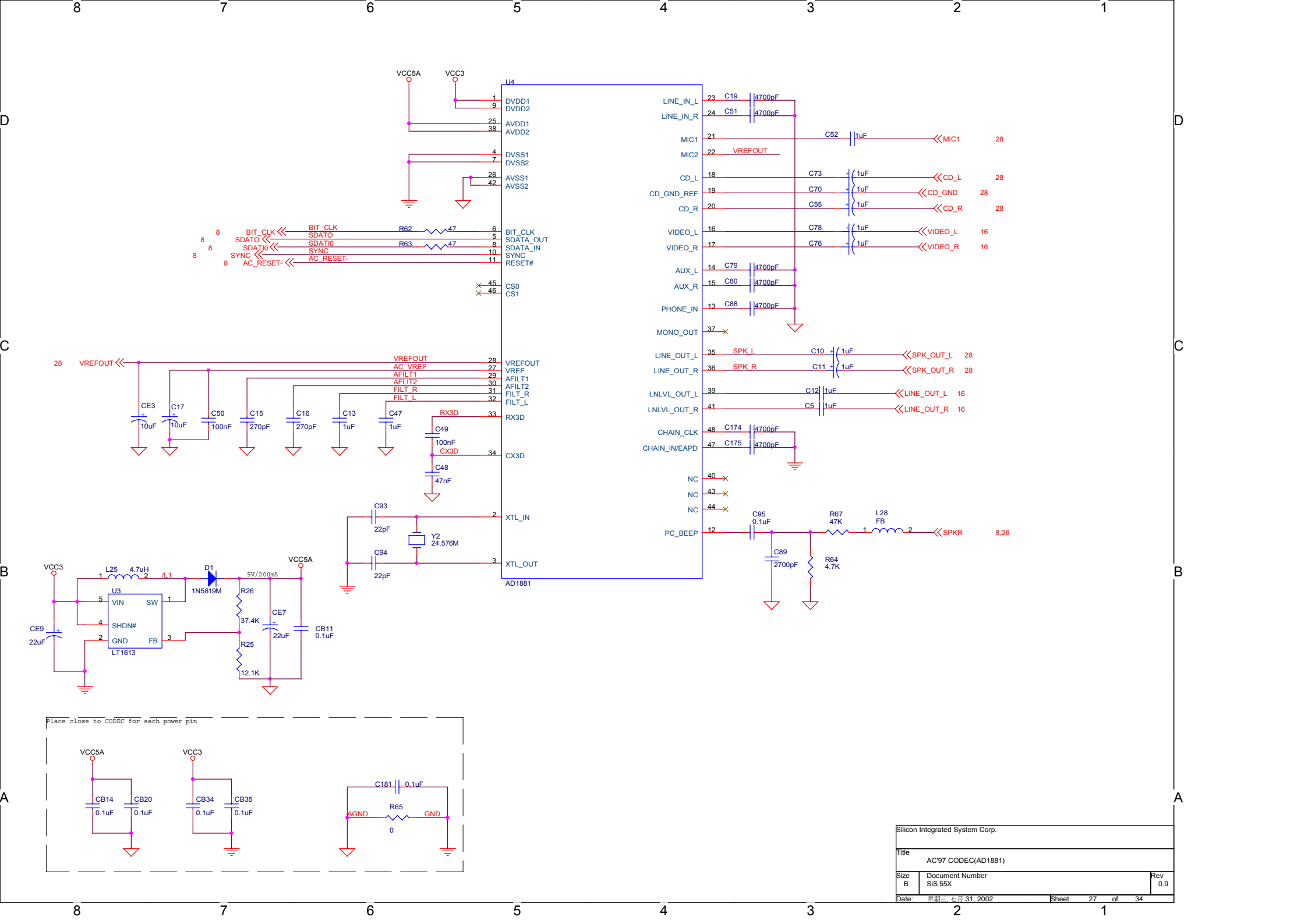


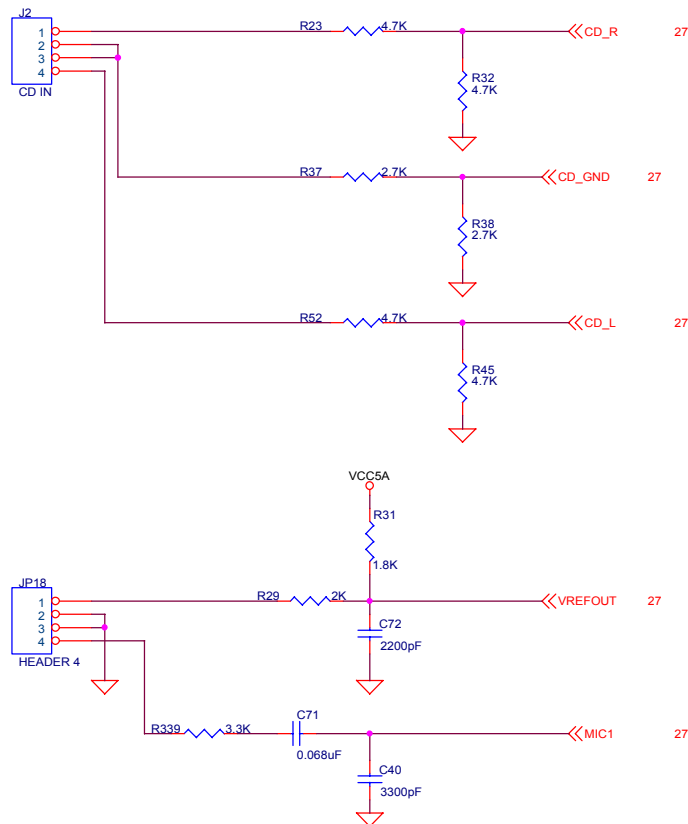
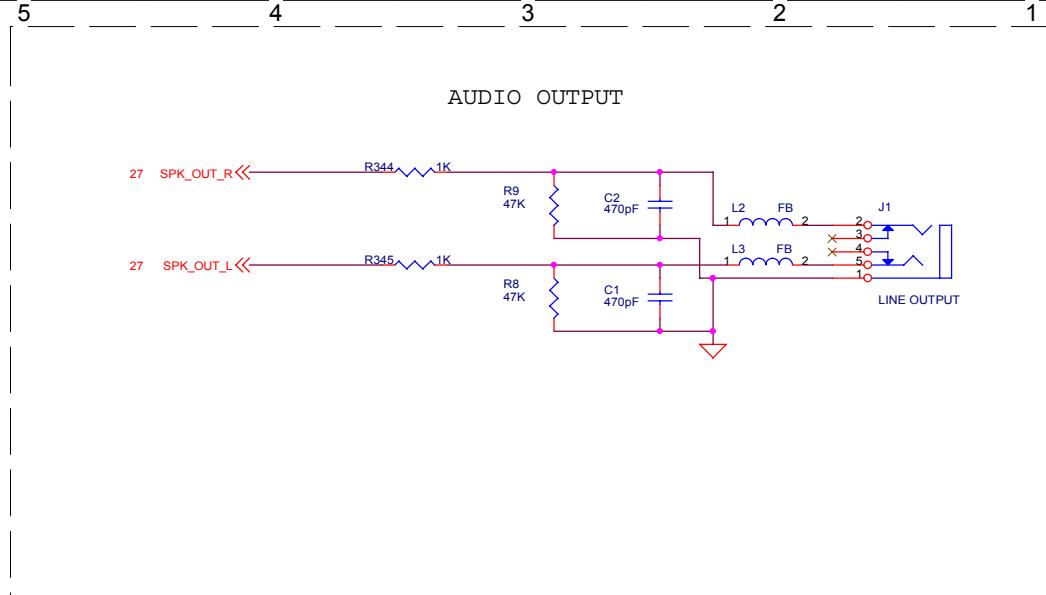
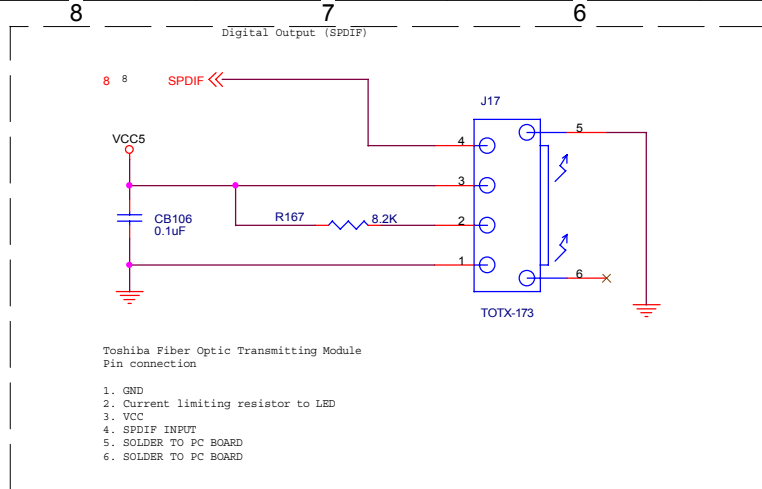
LPC SIGNAL HEADER



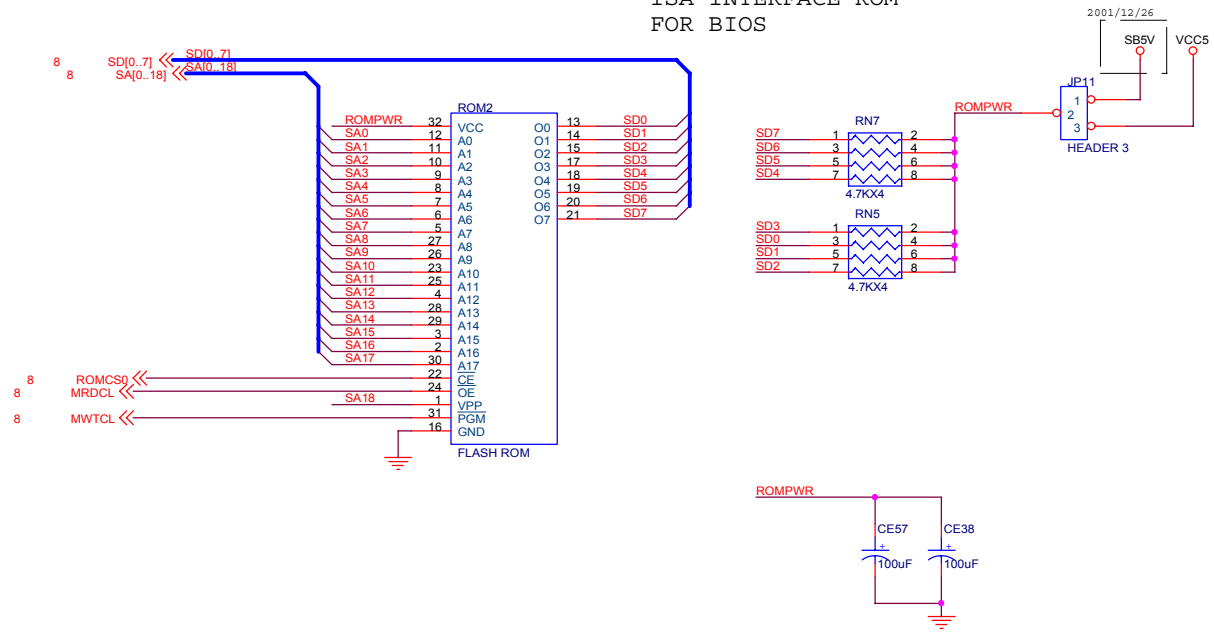
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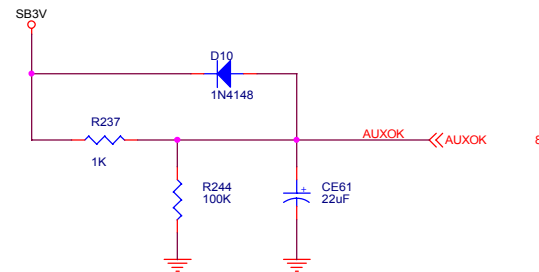
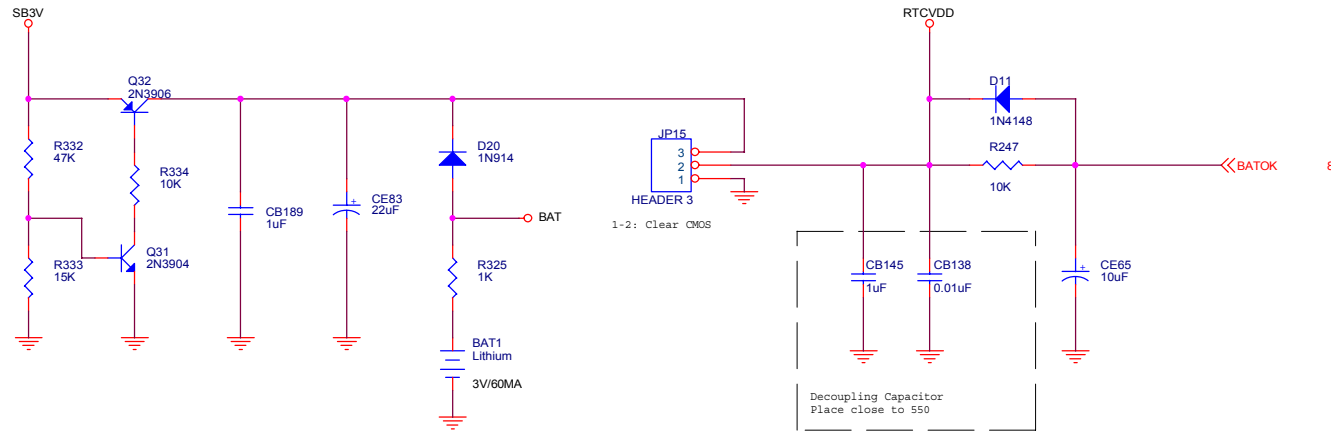
ISA INTERFACE ROM
FOR BIOS

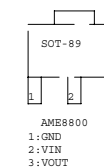
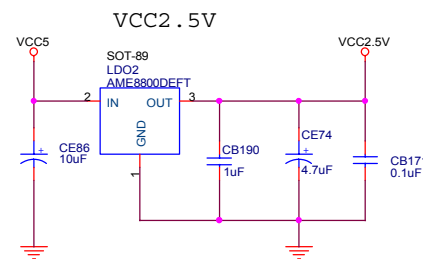
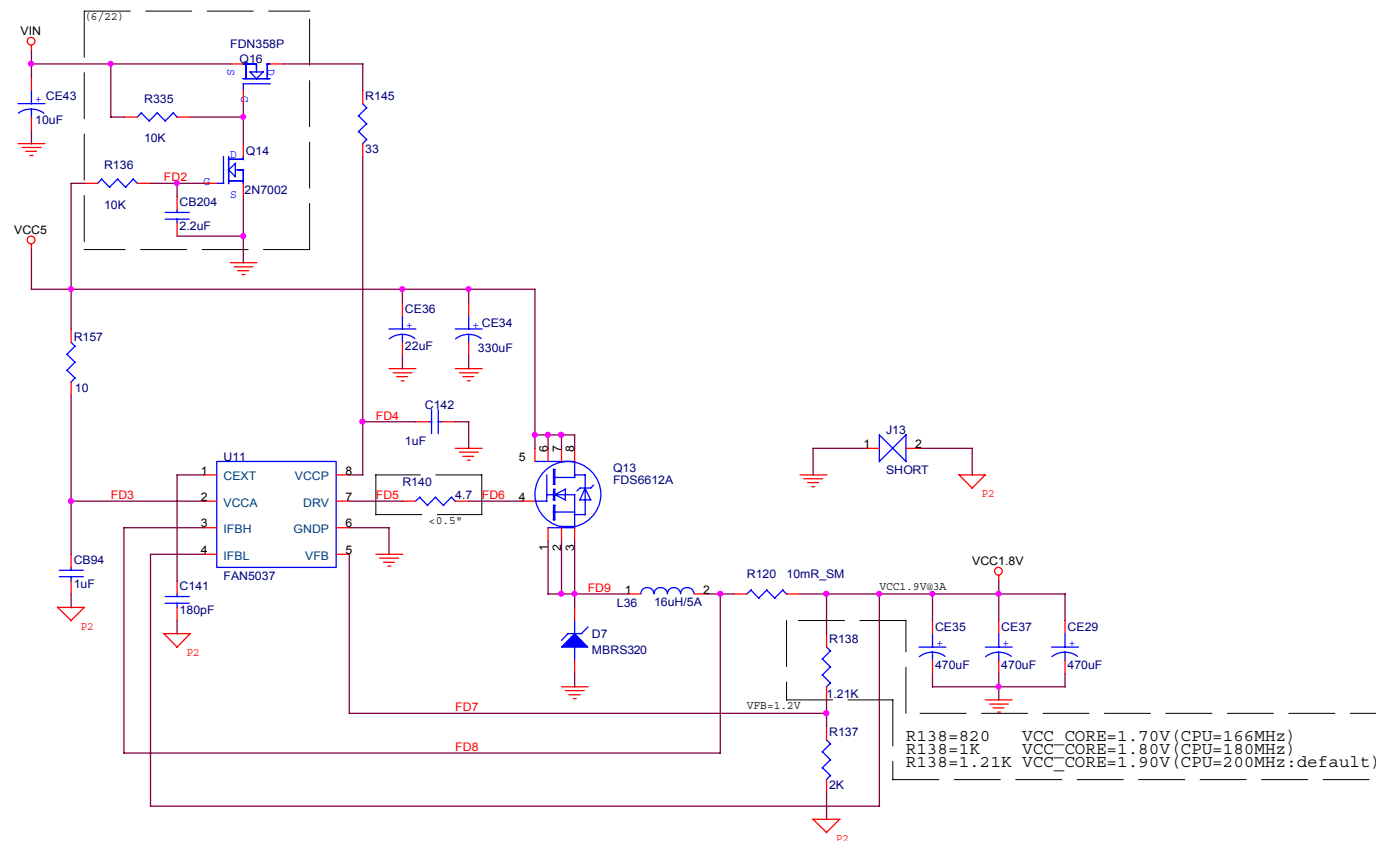


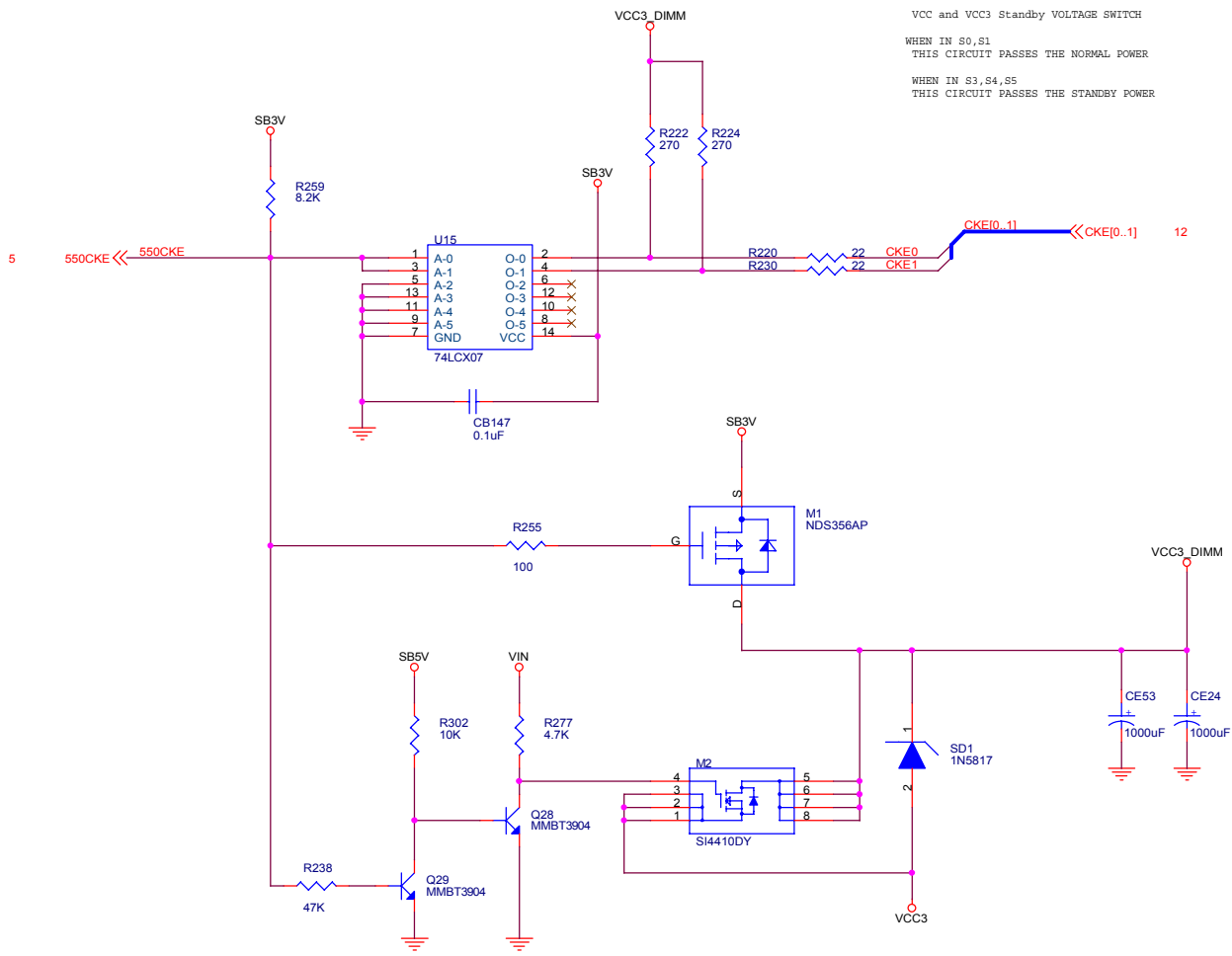
RTC

NOTE!

- 1.The RTCVDD is 3.3V
- 2.Decoupling capacitor must be close to 55X RTCVDD pin.
- 3.RTC circuit must strictly follow SiS's recommended design
SiS is not responsible for RTC problems from foreign designs.



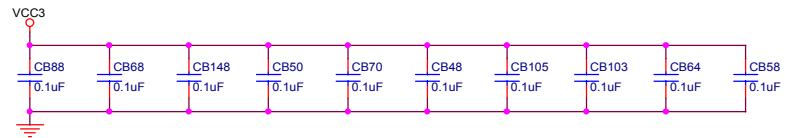
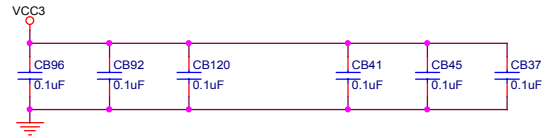
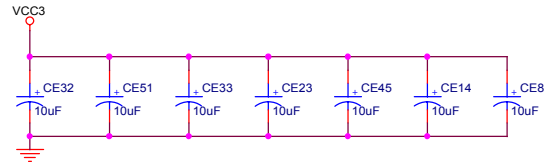
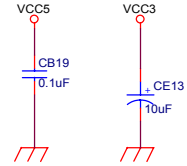
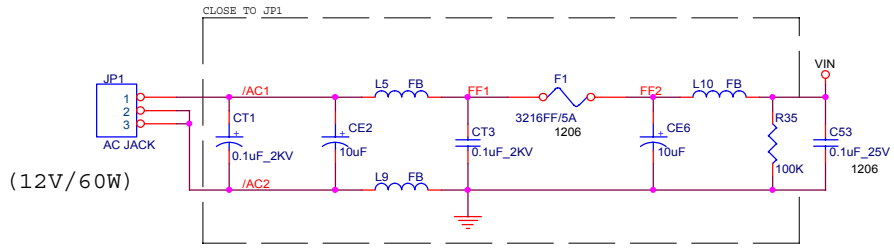




VCC and VCC3 Standby VOLTAGE SWITCH

WHEN IN S0,S1
THIS CIRCUIT PASSES THE NORMAL POWER

WHEN IN S3,S4,S5
THIS CIRCUIT PASSES THE STANDBY POWER



SILICON INTEGRATED SYSTEM CORP.			
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